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THE  
ILLINOIS FARMER,

*A Monthly Agricultural Journal,*

DEVOTED TO THE INTERESTS OF THE

FARMER, GARDENER, FRUIT GROWER AND STOCK RAISER.

---

M. L. DUNLAP, Editor.

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VOLUME VIII, 1863.

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1863.



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# THE ILLINOIS FARMER.

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SPRINGFIELD, JAN., 1863.

NO. 1.

## January.

We stand upon the dividing line between the old and the new year. The old year that has faded out, with age and ceaseless cares, and the young and vigorous new year, with rosy cheeks, made so by the winter's frost, that has given a new impulse, sending the stagnant blood that lazy summer had gathered in our veins, with a quicker flow. From this point we can look back upon the dead past, and forward to the bright and living future. It is here that we pause to take a retrospect of the past, and to lay plans for the future. If we have erred in our plans heretofore we must now exclude the errors from the new calculations and estimates for the coming year.

First let us see if our stock is all well provided for—have they warm stables, good sheds, and plenty of water easily accessible? Has the manure of the past season been hauled out, and are you hauling out the daily manure in the stables? Our soil is rich, it is true, yet the manure will add to its value, for most crops, and more especially for the grasses and the bearing orchards.

During the past autumn less plowing than usual has been done, in consequence of the want of hands, and the time spent in the making of sorghum sirup, which has occupied no small amount of time of both teams and hands. The weather, on the whole, has been favorable for autumn work, though closing on the plow in the north part of the State, and as far south as Springfield as early as the 5th of December, but with fine pleasant weather for the gathering of the corn crop. The wood pile must be

looked after—do not burn green wood if you can avoid it; it is decidedly bad economy. Save all your cobs, for they make excellent kindling, as well as to mix with green wood, if you are compelled to use it; or with coal, even in the green house, we find it valuable to get up heat on short notice of a cold night or unusually cold morning, when the fire has run low, for these purposes it is well to keep it on hand.

A great many things can be done this month, and in themselves, require no great amount of time or labor, and yet they will contribute to the economies of the year. Look over your seeds of all kinds, and see if you have an abundance of each. Examine your tools, and see what you need to make it more perfect, and make arrangements to have the trees and plants at the opening of spring; but do not prune when frozen. Do not by any means neglect your tools and implements, but see that what you have are put in order and well housed. Should you need new ones, have them ordered in time, and do not call these small things, and attend to when the season comes for them, but if you neglect them you will much regret it.

We would not have you work hard this month, but look about to see what is in, and what out of order; to lay the axe over your own trunk—to examine if you have been true to your own trust. It is not the man who works the hardest that succeeds best in farming, but the one who lays his plans the best and carries them out the most faithfully. The great fault is the overtaking of our

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# THE ILLINOIS FARMER.

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NO. 1.

## January.

We stand upon the dividing line between the old and the new year. The old year that has faded out, with age and ceaseless cares, and the young and vigorous new year, with rosy cheeks, made so by the winter's frost, that has given a new impulse, sending the stagnant blood that lazy summer had gathered in our veins, with a quicker flow. From this point we can look back upon the dead past, and forward to the bright and living future. It is here that we pause to take a retrospect of the past, and to lay plans for the future. If we have erred in our plans heretofore we must now exclude the errors from the new calculations and estimates for the coming year.

First let us see if our stock is all well provided for—have they warm stables, good sheds, and plenty of water easily accessible? Has the manure of the past season been hauled out, and are you hauling out that daily made in the stables? Our soil is rich, it is true, yet the manure will add to its value, for most crops, and more especially for the grasses and the bearing orchards.

During the past autumn less plowing than usual has been done, in consequence of the want of hands, and the time spent in the making of sorghum sirup, which has occupied no small amount of time of both teams and hands. The weather, on the whole, has been favorable for autumn work, though closing on the plow in the north part of the State, and as far south as Springfield as early as the 5th of December; but with fine pleasant weather for the gathering of the corn crop. The wood pile must be

looked after—do not burn green wood if you can avoid it; it is decidedly bad economy. Save all your cobs, for they make excellent kindling, as well as to mix with green wood, if you are compelled to use it; or with coal, even in the green house, we find it valuable to get up heat on short notice of a cold night or unusually cold morning, when the fire has run low; for these purposes it is well to keep it on hand.

A great many things can be done this month, that, in themselves, require no great amount of time or labor, and yet they will tell largely in the economies of the year. Look over your seeds of all kinds, and see if you have an abundance of each. Examine your orchard and see what you need to make it more perfect, and make arrangements to have the trees and plants at the opening of spring; but do not prune when frozen. Do not by any means neglect your tools and implements, but see that what you have are put in order and well housed. Should you need new ones, have them ordered in time. You may call these small things, that you can attend to when the season comes to use them, but if you neglect them you will much regret it.

We would not have you work hard this month, but look about to see what is in and what out of order; to play the seer over yourself—to examine if you have been true to your own trust. It is not the man who works the hardest that succeeds best in farming, but the one who lays his plans the best, and carries them out the most faithfully.

Our great fault is the overtaking of our

Selves, putting too much on our hands, making no allowance for bad weather, lame horses, or sickness. In such cases it is sure to follow that we get behind at some point, and, like the train that passes beyond the reach of the delayed traveler, we can never get up with it again, but must wait for the next. Let us then get as nearly ready for the active duties of spring as it is possible to do; lay out a moderate amount of labor, and see that it is faithfully and intelligently applied.

### An Old Pioneer.

Mr. Edward Clark came into the State in 1819, and settled near what is now Springfield. In 1820 he went to Canada, taking a pocket compass for his guide, camping out in the open air, and picketing out his horse, fording or swimming the streams; and thus, after a toilsome march reached Detroit, and passed over into Canada. Returning home, he erected a saw and grist mill the next year on one of the branches of the Sangamon river.

At this time the country swarmed with Indians, and the settlers were few and far between.

In 1834 he put up another saw and grist mill on the other branch of the Sangamon. All of these mills have rotted down, while the builder, now seventy years old, is yet hale and hearty and comes regularly to the office for his ILLINOIS FARMER. Of late years he has been engaged in farming, and takes a deep interest in what tends to forward any branch of his favorite calling.

The first carding machine in this part of the State was put in operation by Mr. Clark in 1834. Cotton was then cultivated on almost every farm, and used for warp in nearly all domestic textile fabrics. One year he planted one and a half acres, which produced a good crop, and was picked by his boys.

Two gins were put up in the county at this time, and which were kept busy

throughout the autumn with small lots brought in, in many cases, from long distances.

It is pleasing to meet these old pioneers, and to gather up the history of the early settlement of the country, a history at all times full of interest.

It was several years before Mr. C. planted an orchard, say about the spring of 1825, an orchard of one hundred trees. These are nearly all gone, having suffered severely in the winter of '55. Out of forty to fifty pear trees planted at various times, but one is left to tell the sad story of blight. In the apple orchard the Yellow Bellflower and Winesap are especial favorites.

### To Make Strawberry Wine.

First of all, the berries must be carefully picked over, taking out the stems, so that nothing remains but the pure ripe fruit; then press out the juice, to which add an equal quantity of water and four pounds of brown sugar to the gallon, put in a barrel and let it ferment six weeks, then lightly bung and stand two months, when the bung is to be driven in tight—let it stand until the middle of May, when it can be bottled. When fermenting, the vessel must be kept full, so that it can work over. To fine the wine an ounce of isinglass put in six gallons of the wine at the time the bung is driven in, will answer a good purpose.

The calyx of the strawberry imparts to the wine a very unpleasant taste, and is doubtless the cause of previous failures. Several samples at the Fair of the State Horticultural Society were thus ruined.

Currant wine is made in the same manner, but the stems need not be taken out.

In the making of currant wine no water should be used; in that case two and a half pounds of sugar to the gallon is sufficient.

We have never made wine from the strawberry, but like the currant, we have no doubt that it would be all the better not to use any water in it. In that case less

sugar is required, the wine would have more body and less stimulating or alcoholic properties. Wine from the raspberry and other small fruits are made in the same general way. The more of the properties of the fruit and less of alcohol should be the criterion in the making of all domestic wines.

### Lawton Blackberry.

Mr. C. C. Sturtevant, of Beardstown, on the Illinois river, informs us that he has a patch of the Lawton two hundred feet long and six feet wide, set three years, which produced an enormous crop of fruit the past season. After supplying his family of eleven persons he sold over twenty bushels of the fruit. Allowing three feet on each side, or a width of twelve feet in all, the space occupied would be about nine square rods, or at the rate of over four hundred bushels to the acre.

They commenced ripening the last week in July, and continued until the second week in September, being two weeks in advance of the wild crop. The second year he cut the canes back during the growing season to about four feet.

From nearly all quarters we hear good accounts from this fruit, but only from plantations in the third or fourth year. It is probable that no small share of the disappointment with this fruit has been with the young plants; in fact, in all cases, when we have taken the trouble to inquire in regard to them, they have not given satisfaction until the third year.

We have a fine plantation of them now three years old, and if the above is true, shall have an abundance of the fruit the coming season.

### Purple Cane Raspberry.

This best of all our native raspberries continues to give good satisfaction both in quantity and quality of fruit. A strong grower, perfectly hardy, does not sucker, is

highly productive and of the best quality—it should be in every garden.

It has but one drawback, and that is a serious one—it is too tender to send any distance to market. It makes a valuable aromatic and medicinal wine.

### Verry Aldrich in Prairie Farmer.

NEW YORK PIPPIN.—Set three years old, five years ago; now full of fine, large fruit. Trees will average one to two bushels to the tree. This is far ahead of any tree we have of its age for fruiting; tree very hardy, and a fast, handsome grower: fruit hangs on the ends of little limbs all through the tree, and hangs so well that they are not easily blown off by the wind, therefore the trees do not require but very little pruning. If we could have had this sort at starting our orchard, it would have made thousands of dollars in our pocket, where many other sorts have not paid the interest of the land they stand on.

We can bear testimony to the value of this fruit from seeing large quantities of it, nearly the only kind in the market at Cairo, through the months of February and March last. The dealers obtained it from Brown Marion and Clay counties, where it is largely grown. They did not know it by its name, but called it by several local names, such as Striped Pippin, Red Streak, etc. It is the same apple called Carolina by the State Horticultural Society two years ago. We have had some doubts as to its bearing qualities so far north; but the experience of Mr. A. in Bureau county will give us confidence to plant it largely. It is one of the best growers that we have, and makes a most beautiful tree. We should say that it is also called Baltimore. If we recollect right, we had it of Tenbrook under this name. We shall plant it largely next spring, together with Rome Beauty, another fine early winter sort. Thus one after another we can add to our list of valuable market apples; and as our farms become sheltered nearly the whole list will prove hardy, but not all alike profitable for market.—ED.

As the days begin to lengthen begin to look after your work.

### Don't Sell Corn.

Farmers of Champaign county, and readers of the *Patriot*, I cannot keep still any longer. I have stood back now for the last two years, seeing you in a manner giving your produce away, such as corn and potatoes; mostly the farmers have had to pay from twelve to fifteen cents more per pound on coffee, than they had to pay two years ago, half a dollar more on a pound of tea, seven and eight cents more on muslins and calicoes and nearly two prices for everything they have to buy. But when they come to hauling away their grain and other produce they have to sell it for one third of what it is worth; they have been selling corn for eighteen and twenty cents when it was actually worth from twenty to twenty-five cents per bushels. I say gentlemen, it is a public shame the way the farmers have been swindled this year; the corn went average more than half a crop and there will be foreign demands for large quantities of corn, and if this war should end before next June, corn would be a big price. I say to the farmers, hold to your corn, don't take less than twenty-five cents for a bushel of it. So nothing more. A word to the wise is sufficient.—*Patriot (Urbana).*

—Now with all due deference to Mr. *Patriot*, we think the above in very bad taste. Farmers must sell; they cannot, as a general thing, hold their produce for a long time, nor is it right that they should. There are times when it is not advisable to sell, but that is the exception, not the rule. The great fault with the farmers of Champaign and other central counties, as well as in Egypt, is selling to the wrong persons. Farmers should shell their own corn, ship it themselves to Chicago, Cincinnati or St. Louis, and have it sold on their own account. In the northern part of the State it is managed better, and the profit that the middle men are after goes into the farmers own pocket. Corn is now selling at eighteen cents at this point: in Chicago it is worth thirty-two cents; the freight is eight cents, shelling corn one cent, nett value of shelled corn twenty-three cents; total thirty-two cents. A difference of five cents that goes to the warehouse man for the use of his house and for shelling and advancing the money, and for his time in buying—a very pretty, yet not a remarkably large profit, if it was necessary to have him and his establishment, but of that we are not so positive.

In buying in the ear, he takes seventy pounds of ear corn. When well cured this will make:

Cobs.....	9 lbs.
Waste.....	3 lbs.
Corn.....	58 lbs

Total

70 lbs.

To shell corn on the farm is worth.....	2 cents.
2 pounds corn, say.....	$\frac{1}{2}$ cent.
9 pounds cobs, for fuel.....	1 “
Saved in hauling.....	$\frac{1}{2}$ “

Total

2 cents.

Thus the farmer is paid for shelling in saving two pounds of corn to the bushel; in 900 pounds of cobs to the hundred bushel, which is equal to half a cord of wood, or half a ton of coal, and saving of hauling that amount to the depot, which with the least makes half a load on every hundred bushels, rating the loads at forty bushels each.

We can thus see that the farmer voluntarily pays to the warehouse man five cents, the whole of which he could save if he chose to do so. Few farmers have less than a car load of 320 bushels. This would make eight loads, and a few farmers clubbing together would haul it in one day. When prices are low the farmer must study how to make the most of it. His holding on will not better the matter, for if he keeps on producing he would soon overstock the market. The warehouse men and grain buyers have nearly disappeared along the lines of the northern roads, and the farmers ship to market direct on their own account, and we see no reason why the same system would not work well in all other parts of the State. We invariably ship the products of our farm and have it sold on commission without the aid of any warehouse other than the depot. It is not always we have a car load, but then we either club with our neighbors or submit to the extra freight, and have always made money by it.—ED.

**TOBACCO GROWING IN McLEAN COUNTY.**—We would give anything but our last mint drop (saved for seed) to know the amount of “the weed” grown in this county the past season. Among the larger patches about we hear of one of some twenty acres, by Messrs. Hoard and Vreeland, another of nine acres, grown by Mr. —, another of seven by Wm. Schaffer, one of nearly three by F. K. Phoenix—all of whom seem highly pleased at the yield and remunerative prospects on their tobacco. From what little we can learn of the yield and prices, the contrast between wheat and tobacco crops this year is very largely in favor of the latter, and we cannot help regretting that our farmers did not put in many hundreds or even thousands of acres of tobacco last spring. Will they not this winter post themselves up, and see if it is not best to take hold in good season and shape next year.

~~RE~~ Recollect that good stabling is of incalculable advantage to stock.

## THE VINEYARDS OF EGYPT.

CATAWBA WINE IN MADISON COUNTY.

TO THE EDITOR OF THE ILLINOIS FARMER:—  
Having been detained a day at Highland, about a week ago, I made use of my compulsory leisure to visit the vineyard of the Messrs. Koepfli "whereof by parcels you have something heard," but perhaps not so much as to make this communication devoid of interest.

Highland is an inland town of Madison county, situated in the southeastern corner, and is some thirty miles north of east from St. Louis, and ten miles north of Trenton, its depot on the Ohio and Mississippi railroad. It contains a population of some 1,500, composed of Swiss, mostly, who generally speak the German language, but occasionally French, according to their cantons. Half-a-dozen Americans represent the native element in this imported town, otherwise all are foreigners or their immediate descendants.

The face of the country hereabout is prairie, interspersed with numerous elevations, too gradual in their rise to be called mounds, which are generally covered with groves of oak and hickory, giving evidence, if we may accept Prof. Hall's view, of a soil less comminuted than the surrounding silt of the lower grounds. Long lines of Lombardy poplars along the roadsides and the occasional vineyards point out the foreign origin of the inhabitants, whose farming puts to shame much of the easy going agriculture of "Egypt."

Caspar Koepfli, of the canton of Luzern in Switzerland, settled in this neighborhood in the autumn of 1831, and in 1837 the town of Helvetia now known as Highland, was laid out. The settlement is accordingly over thirty years old, and its experience in vine growing of co-equal duration. Dr. Koepfli and his sons brought with them wine grapes from different parts of Switzerland, France and Germany, with the object of making experiments in wine culture. They soon found those grapes would not do here. At last in 1843, they visited the vineyard of Mr. Longworth at Cincinnati, and brought home 100 vines of the Catawba, from which they made in 1847 110 bottles of wine; a few bottles of which are still carefully preserved. In the same year, encouraged by this success, they began planting their present vineyard. This is upon one of the most beautiful farms I have seen upon our fair prairies. It comprises a half section of land bordering on the north of Highland. A gradual slope of half a mile from the village northward

carries you upon a high eminence, covered with a fine grove, and commanding a wide prospect over the rolling prairies and pleasant fields, grove crowned hills and embowered farm-houses. Upon this eminence is situated the dwelling of Messrs. Joseph and Solomon Koepfli, fronting the south and surrounded with natural and planted trees, producing a very pleasing effect. South of the house on the slope, fronting the southern sun and sheltered by the grove, lies the vineyard planted in 1847, 1848 and 1849 and now containing four and a half acres; or about 12,000 vines. Those of 1847 were at first planted 6x6, but by layering were afterwards made 6x3. Those planted in 1848 and 1849 were planted 5x3. They consider 6x3 better. To get the sun the rows run east and west, 6 feet apart, and are cultivated with the plow in that direction. The ground was trenched to the depth of two feet before planting. They consider that three feet would have been better, and recommend rotten manure in the bottom of the trenches. They laid one pipe to the depth of three feet to test the matter of drainage, but it never delivered any water. Perhaps the subsoil is less retentive than is usual under the white soil of Egypt: at any rate they say that a deep cellar dug before the house was built, retained no water. They manure abundantly and consider this a prime requisite to success. Horse manure has been found not so easily rotted and taken up as cow manure, and the latter is therefore preferred.

In the general management of the vine, they follow the same plan as that described by Dr. Warder in the Patent Office Report for 1856. They plant the Catawba almost exclusively, considering it the best grape yet proved. It blights more or less every year, commonly about the first of July, but this year near the end of that month, but they consider that it fails no oftener than grapes in Europe, and that the quality of the wine will compare favorably with that of the Old World.

The Messrs. Koepfli believe prairie better than woodland for wine culture, and the interior better than the banks of rivers, because more free from moisture. They think the country getting drier as it is more pastured and cultivated, makes the climate more favorable, and say that this is also the experience of Mr. Longworth at Cincinnati. They prefer a southeastern aspect for the vine, but have found the shelter of their grove injurious, which they attribute to its checking the circulation of air.



For good advice, as they believe, on wine making, they refer to the extracts from Dr. Ludwig Gall, translated in the Patent Office Report of 1860.

Their experience in wine making was something as follows:

In 1850 they made 1,000 gallons from their two and one half acres of three years old vines, and nearly ruined them by permitting them to bear such a crop. In 1851, a frost on the first of May destroyed the crop. From that time until 1857, absence from home and other causes prevented them from keeping accurate accounts of the product of the vineyard, except to note that 1853 was another favorable year. From 1857 to 1862 inclusive, the record stands as follows:

1857, 668 gallons,  
1878, 120 " (the worst year.)  
1859, 306 "  
1860, 593 " (earliest vintage, began Sept. 4.)  
1861, 1717 " (largest crop and best wine.)  
1862. 446 " of juice.

Total 6 years 3850 gallons, or 641 gallons per annum, from 4½ acres, which would be an annual product of 142 gallons per acre, usually worth \$2 per gallon, which gives \$284 per acre each year, gross receipts.

During three years the vineyard has been rented to a vine dresser from the old country, for half the product. The Messrs. Koepfli have found that they have earned \$3 for each day spent in the vineyard.

They find the loss in fermentation and racking off about ten per cent. The vintage of 1861 yielded five gallons or more of wine to the bushel of grapes. The best wine is produced in the years when the grapes are most abundant. In 13 years experience four have been remarkable for good crops, viz: 1850, 1853, 1857 and 1861.

They have experimented some with Norton's Virginia and think it will not blight. It making heavy, red, coarse wine, not nearly so good as the Catawba. Have not experimented with the Delaware. A trial of some wine from the Catawba vintage of 1857 and 1861 confirmed my opinion of the judgment of the makers—that

"There grows no vine  
By the haunted Rhine  
By Danube or Guadelquivier,  
Nor on island or cape,  
That bears such a grape  
As grows by the beautiful river.

"Very good in its way  
Is the Versenay,  
Or the Sillery soft and creamy:  
But Catawba wine  
Has a taste more divine,  
More dulcet, delicious and dreamy."

The example and success of the Messrs. Koepfli has induced many of their neighbors to plant vineyards; and there are now from 25 to 30 acres planted in the vicinity of Highland. Of their success I did not learn.

FARMER FREEMAN.

November 15, 1862.

—The above is one of the most valuable chapters on the grape that we have seen of late. It embraces practical facts that far outweigh all the theories of the visionary. Here we have a steady persevering effort, successful in the aggregate. It proves what we have said, that all the light, chalky lands of the basin of Egypt, with fair drainage, are valuable for the grape. It is not necessary to have hill sides for the vine—good drainage and thorough culture will ensure a crop. Will not our correspondent give us more such notes.

Ed.

### Training vs. Breaking Colts.

During several years last past, a clashing of ideas, a conflict of opinion on the best time, as to age, to break colts, has been apparently quite prevalent. As to whether it be of the nature of an "irrepressible conflict" or not, must of course, be determined by the physiological soundness of the views of those who are making efforts to reform long practiced habits in the matter of "colt breaking," so called. One party—conservatives,—in a certain sense—stick to the practice of allowing colts to run untrained till three or four years old, before they are used for any practical purpose, or even handled with a view to facilitate their present tractability and future "discipline;" while the other practice and enjoin early handling, as adapted to induce docility and good service subsequently; and furthermore because gradual training saves or supersedes much of the severe and frequently dangerous labor of subduing the untoward or wild spirit of colts that have almost horses grown before being initiated into any of the services for which horses are domesticated. Some of those that let colts become large and rampant before working or even haltering them, have sometimes an abrupt and not over intelligible way of expressing their ideas in the phrase, "let her rip." or "let her slide," as it may happen. Others say, if you break a colt when too young, say a two-year-old, you spoil the horse; that he never has any spirit afterwards; that his growth is "checked" or hindered, etc., etc. And the same class of persons talk in much the same strain as to boys and girls. They are unfit or unable to do anything till they can do a great deal. 'Tis of no use to "teach the young idea how to shoot," or grow in the direction that is best, but leave it to hazardous chance so far as work or practical training in the business of future life is involved. On the other hand, our reform-

ers in the uses of the horse know full well that as of human so of horse nature, "as the twig is bent the tree is inclined." They comprehend that "prevention is better than cure;" that colts, like children, become vicious from improper association, and headstrong and hard to control from the neglect or entire omission of early training, and obedience to natural and proper authority. Old style says, If you break the colt young you break his spirit, and without spirit what is your horse worth? New style replies, If you do not break him when young, you have, too frequently, a great bungling, willful brute, instead of a docile, ready, and useful horse. Old style rejoins, Our quiet trained colt has "no show" about him, because his spirit has been trained out of him, and what is a horse without show, action, "game!" New style answers, The horse is kept for purposes of utility, mere showy action and its admirers notwithstanding. Discerning men are not deceived by mere show—they prefer practical tests. If I train my colt from the time he is a suckling systematically and regularly till he becomes a horse, I do not break his spirit, but mold and direct it to the useful and practical services for which he is bred and raised. In brief, by early handling and training I domesticate the young beast, instead of letting him run nearly wild, and become restive, headstrong, uncontrollable, and about as difficult to subdue as the wild horse of the Pampas, Tartar, or of the Mexican plains. In point of fact, allowing colts to go unbroken till they are required for full and arduous labor, is little different from, and no improvement upon the horse training habits of Tartars or Brazilians themselves. For the seeming wild system involves much cost and labor, which is saved by "letting her—the colts—rip" without let or hindrance, till the period of breaking. There is, too, an inconsistency in the routine of our old style horsemen, namely, that while they accuse the advocates of early and gradual training of what is not true—of destroying the spirit of the future horse, by teaching habits of obedience to the colt—they are themselves of necessity obliged to do the very thing which they impute to early trainers as a fault, that is to subdue or "break" their spirit when they break their colt, which the early trainer has no occasion to attempt, because he domesticates his colts from the start, and has no semi-wild, rampant, restive, fractious animal to break or subdue.

Again, domestication is to the horse what civilization is to man, in some sort. It is a process which involves constant obedience to necessary practical discipline, as much for his own benefit as that of his associates. But your rampant, spirited colt-horse is *not* disciplined, civilized or domesticated; is, in fact, a semi-wild animal, about as much controllable as the hogs feeding on acorns in the woods. This breaking large colts is, in fact, a violent and absurd system, in that it encourages traits and habits in the colt, which it is necessary to repress and subdue in the horse. It necessitates a great change of habit, from a nearly wild condition to one of generally severe discipline and excessive labor. It is, therefore, *revolutionary* and extreme; a trans-

ition from a state practically beyond the influence of domestication, to one designedly subordinate to the discipline of practical life. I thus generalize, because I hold to the principle that consistency is a "jewel of high value, that theories of correct practice are always consistent with it," for the cogent reason that the practical suggests the theoretical; the facts are results which signify anterior influences; general results or consequences "imply and indicate causes both immediate and remote," inevitable and insufficient. *Ipsi dixits* and arbitrary experience are of no avail, if inconsistent with natural causes and influences. A principle or idea is practical, otherwise chimerical and void of effect. On the general subject, then, I arrive at the conclusion that the old style of practice—it is not a system or method, because it is *negative* up to its revolutionary stage—of breaking colts—or not breaking them—is inconsistent and absurd in theory, and most uncertain in results. I have seen a good many colts spoiled by professional breakers—lazy, dissipated fellows, about as well suited to training a colt as to teaching astronomy. In this way the untrained battle with the untrained animal, force encounters brute strength, and the stronger will conquer; the result being frequently a vicious, and generally a less valuable and serviceable animal, than early and regular training—without "breaking," or any habit requiring to be broken—would make or have made of him. I have no doubt the observations of others will support this view, otherwise by what legerdemain are so many thousands of promising colts so completely and quickly transformed into worthless horses, as is too truly conspicuous over much of the country?

The truth is, breaking colts is radically wrong, is a semi-wild, not a civilized—and no one who has seen it will claim that it is civilizing—practice. It is allowing force to accumulate for the brutal pleasure of the habit—for there can be no advantage—of applying force to subdue it. It is in no sense a custom involving domestication, or making fit for service, and appears to be merely an imitation or continuation of the customs of Tartars and others, who are as wild as the horses they subdue. On the contrary, training from the colt from a suckling till a horse, is a continuous benefit, a constant agency of domestication, a preventive discipline, superseding the necessity of breaking by molding the energies gradually into habits and qualities that are desirable and useful, and, therefore, do not require to be subject to any "breaking" process, nor any revolutionary attempts at subjection or eradication.

It may possibly be alleged, that training colts instead of allowing them to become half wild, and then calling in some wise-acre—who never read a line, or devoted an hour to animal physiology in his life—to subdue or break their spirit and reduce them to obedience by force, would deprive us of the professional services of many distinguished persons; but for one, I should esteem the removal of all occasion for colt breaking, no greater loss than the services of the constable or hangman; it were better for all if each were better employed. It is, however, certain, that no one can be so fit to train a colt to service, as

those who are familiar with him and his dam from the first—and I conjecture, the capacity of those who raise fine colts, is at least not inferior to loafing colt breakers—hence, those who go to the expense of producing good horse stock, should train or personally superintend the training of their colts themselves. There is no abstruse mystery about it; a modicum of good sense and cool energy are sufficient. It is much less difficult to train young colts, than for a city man like Bonner, or a naval, commercial man like Vanderbilt, to inure themselves to the management and driving of the swiftest and most costly teams of this or any other country; yet these gentlemen have done this, and their doing it is a most eminent success. My remarks are, however, designed more for farmers who raise colts. I wish them more uniform success, and more advantage from their business: and if they will look into the natural causes which control all the results connected with the subject, I am confident they will find their advantage in discarding, altogether, the incongruous practice of colt breaking, and substituting the natural and consistent method of early and regular training; a plan, be it remembered, which many of the most successful horse-breeders of the country have already initiated and carried out, with indisputable success and undoubted profit, besides the advantages of convenience and certainty which must always attend gradual training, in contradistinction with the hazardous and laborious breaking custom, herein commented upon.—*American Stock Journal.*

### Law to Prevent Cattle from Running at Large in New York.

The following law was passed by our Legislature at its late session:

AN ACT to prevent animals from running at large in the public highways.

*The People of the State of New York, represented in the Senate and Assembly, do enact as follows:*

SECTION 1. It shall not be lawful for any cattle, horses, sheep, or swine to run at large in any public highway in this State.

§ 2. It shall be lawful for any person to seize and take into his custody and possession any animal which may be in any highway, and opposite the land owned or occupied by him, contrary to the provisions of the foregoing section. And it shall be lawful for any person to take into his custody and possession any animal which may be trespassing upon premises owned or occupied by him.

§ 3. Whenever any such person shall seize and take into his custody and possession any animal under authority of the next preceding section, it shall be the duty of such person to give immediate notice thereof to a justice of the peace or a commissioner of highways of the town in which such seizure and possession shall have been taken, and such justice or commissioner shall thereupon give notice by affixing the same in six public and conspicuous places in said town, one of which shall be the district school house near-

est the residence of such justice or commissioner, that such animal or animals will be sold at public auction, at some convenient place in said town, not less than fifteen nor more than thirty days from the time of the affixing of such notice, to be specified in such notice; the same justice or commissioner shall proceed to sell the said animals for cash, and out of the proceeds thereof shall, in the first place, retain the following fees and charges for his services in giving said notice and making said sale, viz: For every horse, one dollar; for every cow or calf, or other cattle, one-half dollar; and for every sheep or swine, twenty-five cents; and shall then pay to the person who shall have seized the said animal or animals the sums following, that is to say: For every horse so seized or sold, one dollar, for every cow or calf, or other cattle, one-half dollar; and for every sheep or swine, twenty-five cents; together with a reasonable compensation, to be estimated by such justice or commissioner, for the care and keeping of said animal or animals from the time of seizure thereof to the time of sale. If there shall be any surplus money arising from said sale, the said justice or commissioner shall retain the same in his hands, and pay the same to the owner or owners of said animals, after a reasonable demand therefor and satisfactory proof of such ownership, provided such owner or owners shall appear and claim such surplus moneys within one year after sale. And if the owner or owners of such animal or animals shall not appear and claim such surplus moneys within one year after such sale has been made, he shall be forever precluded from recovering any part of such moneys; and the same shall be paid to the supervisor of the town for the use of the town, and his receipt therefor shall be a legal discharge to said justice or commissioner.

§ 4. Any owner of any animal which shall have been seized under and pursuant to the foregoing provisions, may, at any time before the sale thereof, demand, and shall be entitled to the possession of such animal, upon the payment by him of the several sums hereinbefore required to be paid to the said justice or commissioner, and to the person by whom the seizure aforesaid shall have been made, together with a reasonable compensation to the person making such seizure for the care and keeping of such animal, to be estimated and fixed by such justice or commissioner, and upon making to such justice or commissioner satisfactory proof of ownership. And if such owner shall make such demand and proof at least three days before the time appointed for such sale, he shall be entitled to the custody and possession of such animal, upon paying one-half of the several sums above mentioned, together with the whole amount of compensation awarded by the said justice or commissioner.

§ 5. In case the animal so seized under the foregoing provisions of this act, shall have been so running at large or trespassing, by the willful act of any other person than the owner to effect that object, such owner shall be entitled to the possession of such animal by making the demand therefor and the proof required in the next preceding section, and paying to the person making such a seizure the amount of com-

pensation fixed, such justice or commissioner, for the care and keeping of such animal, and without paying any other charges. And the person committing such wilful act shall be liable to a penalty of twenty dollars, to be recovered in an action at law at the suit of the owner of such animal or the person making such seizure.

§. 6 All acts or parts of acts inconsistent herewith are hereby repealed.

—We would call the attention of the members of the Legislature to the above law, as well as all farmers in the well settled parts of the State, that a similar law be passed, subject to the town or county authority, or a popular vote of either, so that all parts of the State now prepared for its introduction can avail themselves of its use.

The cost of fencing is a heavy tax on the farmer, and who has often to protect his crops from the stock of persons who neither own or lease any land. We need a public act on this important subject.

In many parts of the State stock is not allowed to run in the highway, and it is found an easy matter to enforce the law in thick settled parts of the country. Every farmer is interested in it, and those who own stock are compelled to pasture it or dispose of it in some other way.

Ed.

**PACKING BUTTER.**—A Chicago merchant who deals largely in butter, gives the following direction for packing:

"In packing butter, be careful to select butter of one color for each firkin, work out all the milk, use fine dairy salt, and not so much of it as to spoil your butter, weigh your firkin, giving good weight, and mark the weight on the firkin, and when filled head it up, and nail the hoops so as to keep them in their places; and if kept in a cellar, place them at least a foot from the ground or floor, to prevent the dampness of the cellar from staining them; and when you ship mark them as little as possible, for it affects the sale of the butter from one-half to one cent per pound. In the condition in which the packages arrive, packers of butter will find by observing the above suggestions that they will often realize sufficient above the market prices to pay the freight and commissions on their butter to Chicago, or even to an Eastern market."

**CURING PORK.**—A French chemist has lately asserted, that scurvy will never arise from the use of salt provisions, unless saltpetre be used in the curing; that salt alone answers all the purposes provided the animal heat be entirely parted with before salting. He claims that the insertion of pork in pickle alone is not sufficient, but that it should be rubbed thoroughly with dry salt after it has entirely parted with its animal heat, and that then the fluid running from the meat should be poured off before packing the pork in the

barrel. This should be done sufficiently closely to admit no unnecessary quantity of air, and some dry salt should occupy the space between the pieces, and then pickle, and not water, should be added. Great care must be taken to fill the barrel entirely full, so that no portion of the meat can at any time project above the surface of the fluid; for, if this occur, a change of flavor ensues such as is known with rusty pork.

The pickle, of course, must be a saturated solution of salt and water, that is, so strong that it is incapable of dissolving more salt. It must be remembered that cold water is capable of dissolving more salt than hot water.

**STRAWBERRY PLANTS—LOOK OUT FOR HUMBUGGERY.**—Wm. R. Prince of Long Island, thus exposes some of the humbugger that has been practiced at some of the late exhibitions.

"We have witnessed the present season quite a number of the old varieties of strawberries exhibited under new names. And it now appears that the Bartlett, which has been puffed as a new seedling, and as producing at the rate of six hundred bushels to the acre, is in fact the Brighton Pine, or some one allied to it, and very unproductive. The Newport proves to be an old valueless variety; the Wyoming and a new Elton Seedling, have been proven to be the Hovey; the Germantown pistillate proves also to be the Dover, and the Germantown staminate is the old Cushing; the Queen of America proves to be the Voorhis, and the Bunce is said to be Cutter's Seedling. Lennig's White, the Albion, White Pine-Apple, and White Albany, have all four proven identical, and the Strawberry Committee of the Brooklyn Horticultural Society, have just granted a ten dollar premium for "the best new seedling," which proves to be Longworth's Prolific: while the British Queen, which Mr. Knox has recommended for field culture, is River's Eliza. It is full time we should have a standard as to the qualities demanded for any new strawberry, and not multiply sour and insipid trash. It is also full time we should have experts on our strawberry committees, and thus prevent what occurred at the recent exhibition at the American Agriculturist rooms, where, in consequence of the awards being made for plates of berries numbered and not named, there were exhibited several plates where the same kind was duplicated."

**BLACK KNOT ON PLUM AND CHERRY TREES.**—We have repeatedly examined the fresh excrescences with the best microscopes, but without discovering the least indication of any insect. If the curculio were present in ninety-nine cases out of a hundred, yet if I were shown conclusively that it is absent in the hundredth, it is hard to conceive how it should cause the excrescence in this hundredth case.—[Country Gentleman.]

## Meeting of the State Horticultural Society at Bloomington.

1ST DAY, DEC. 2D, 1862.—MORNING SESSION.

The society met at 10 o'clock, A. M., in Roys' Hall, about twenty-five members in attendance, embracing some of the best horticultural talent in the Northwest. Those from abroad are: Dr. J. A. Warder of Cincinnati; N. J. Colman, editor of the *Valley Farmer*, and President of the Missouri Horticultural Society; Dr. L. D. Morse, President of the Merrimac Horticultural Society; Geo. Beeler, delegate from the Indiana State Horticultural Society; and Mr. Hoffman, of Crown Point, Ind.

The President, O. B. Galusha, called the meeting to order, and addressed them in a very happy strain for half an hour. A few of his remarks we give below:

"The season has again arrived when we are accustomed to meet for the discussion of those topics which we deem of importance in promoting the prosperity of the Society, and in carrying out the object for which it was instituted.

Each occurrence of our annual gathering, forms one of the bright pages in our individual history, one of the cares in life's journey which gladdens all our hearts, since all are here united in the common bond of brotherhood, which is wont to link those who are laboring to promote one common end, to achieve one common object. More is this true, when the end to be gained will prove a permanent blessing to mankind, and when the means to the end includes the cultivation of the tastes and the refinement of both the mind and the body.

It is therefore with mingled pride and pleasure that I refer you to our history as a society, to the good results in the various departments, to the perfect harmony of feeling which has prevailed in all our discussions, the deference which each has paid to the others opinion, how much-soever they may have differed in opinion from his own; in short the good will with which each has been greeted, and the uniform good fellowship which has characterized all our intercourse, whether in public or private.

In reviewing our past history, we see much to stimulate and to encourage, for the future. From a little handful of zealous men, who six years ago met in Decatur, when the Society had its birth, its numbers has constantly increased until they are now counted by hundreds, and our influence is being for good, in every township in

the State. Young groves are springing up which are destined to add beauty to the landscape and value to the farm. Here and there houses which are being made attractive by embellishment in their surroundings. Improvement is being made in the varieties of fruit, and the modes of cultivating them. Our reports are eagerly sought by cultivators who are about to plant orchards, groves, belts, hedges or gardens that they may learn what to plant—how to plant and how to cultivate."

The President referred to the fact that while our fruits appeared and were really becoming better in quality, yet the trees appeared to lose vigor, and he would call the attention of members to the propriety of doing something in this direction to counteract the latter; that we should go back to first principles, and thus fortify the weak points.

Dr. Warder discussed the latter point at length, and freely concurred in the necessity of paying more attention to the hardiness of the tree; to good and continuous crops, rather than a few specimens of superior, showy fruit. That in departing from the original type, they become better in quality, while the tree was less hardy, was a well established fact. We must turn our attention in that direction, and, if possible, increase the hardiness of the tree, at the same time materially diminishing its quality. In the departure from the original condition, we both lose and gain—gain in richness of fruit, and lose in the hardy qualities of the tree.

He referred to Van Mon's theory of new varieties, and proved this most prominent theorist an impostor, preaching one theory and practising another; that his so-called system of the amelioration of varieties was a base fiction; and all the real facts were at variance with general received opinions on that point. Mr. Berkman, the successor of Van Mons, who practised a system of hybridizing, had been able to impart vigor and durability to his new pears, by a careful selection of both parents and in his seedlings, discarding all that had not firm wood and good constitutions as of no practical value, notwithstanding they produced a few specimens of superior fruit.

Mr. Overman followed in the same vein, reviewing the history of pear culture, and the villainous tendencies of the Van Mon theory.

Mr. Shaw said that in the production of new seedling apples we should not form too hasty conclusion, as it was often the case that for the first six or seven years the fruit varied both in



quantity and quality, and that a poor fruit might so improve in a few years as to become valuable. it was too often the case that these new fruits were hastily condemned or vastly overestimated.

Mr. Colman of Missouri said that about St. Louis we find the finer fruits less hardy than the seedlings, that we should select the slow growers, as these will be found the most hardy and valuable.

Mr. Bryant would take issue on that point, as with him seedling apple trees were no more hardy than the grafts, even those of rapid growth like the Sweet June. In the winter of 1854-'55, which proved so destructive to orchards, the slow growing seedling suffered alike with those of the most vigorous habit.

Mr. Galusha would explain that the hereditary transmission of characteristic, goes far back into the history of fruits, that it is possible to produce new kinds, containing both hardiness and high quality of fruit.

Dr. Morse would ask how we could reconcile the doctrine of tender trees and fine quality.

Dr. Warder replied that in the history of pear culture that we could easily lose our labor by cultivating for fine quality without regard to hardiness of tree, that in the one case we could have a few very superior specimens, but can make no money on them, and must forego the use of their fruit. He was something of a pear mania-ist, so much so that he wanted a good fruit that produced in plenty, and trees just as hardy as he could get them; that he was willing to take up with a less luscious fruit if he could have it in abundance.

Messrs. Colman and Bryant, discussed the hardiness of slow and rapid growing trees, the former contending that the short jointed, slow growing trees were the most valuable, ripening their wood early in the season and producing more continuous and abundant crops, while the latter contended that rapid growers, like Sweet June and others of this class, proved as hardy as those of slower growth.

Mr. Minier would cite the case of the Little Romanite, a rapid growing tree and very hardy. He suggested that it was the very rapid growth of any particular season, such as the past one, in which the growth is enormous, and he feared the coming winter would prove disastrous to the fruit trees, and he believed that it was this condition of the trees when entering the winter in this immature condition; he would, therefore, reconcile these discrepancies of slow and rapid

growth, for in such seasons as the past, both of these classes will prove tender.

Dr. Warder would call the Bartlett a tender tree, its woody structure was weak and its branches would snap in every wind, yet every one wanted Bartletts, but he would not advise its planting on the prairie, unless inside of "Rural's" double belts of silver maples.

Smiley Shepherd of Hennenin has tried all the varieties of pear from Van Mons. Leon Le Clere, down to the scraggy, thorny kinds; all, all, had gone with the horrible blight. He knows no difference in the hardiness; when the blight came they all went. One season some of the varieties stood well, but the next would finish them. In his experience the seedling was as liable to the attacks of blight and insects, and no more hardy than the grafted varieties.

President Galusha contended that a seedling from the seed of two tender sorts hybridized, was no more hardy than its parents.

Mr. Colman contended that trees injured by the winter or other cause, should not be used for stocks or grafts, and to this cause might be attributed the failure of many varieties.

Mr. Minier coincided in these views, and would recommend a more thorough study of the circulation of the sap.

Dr. Warder and others contended per contra that the new growth overlaying the old, was perfectly healthy; if this was not so, we would not see large and rapid growing forest trees badly decayed near the base put on such vigorous growth for hundreds of years after the injury from fire or other causes. That the growth of the tree was made at the outside, and it mattered not if the inside heart of the tree was diseased, it did not perceptibly injure the vigor of the growing tree. Thus fruit trees injured by the winter, might and did to a great extent recover, by putting a new layer of wood over the injured surface. This is often the case with the peach, as in the season following the winter of 1854-'55, also with the apple. All through the country thousands of trees had almost if not wholly recovered from the injury, when good culture had enabled them to form new layers of wood the next season, while those neglected were ruined. Thrifty growing shoots upon a tree injured by the winter or other cause were just as good to propagate, as those from any other source. A thrifty growing tree being checked in growth by transplanting and after neglect would at once become black at the heart and ultimately rotten; yet such a tree with good cul-

ture would recover and form healthy layers of wood over the diseased portions, and practically be in a healthy, vigorous condition. It is from the want of good culture after transplanting that so many trees die. They begin to decay from the inside, and not having sufficient vigor to stand the drain upon their vitality yield up their life. It is therefore highly important that new-set trees have the best care, for at that stage they can bear but little strain upon their vital energy. We see old apple trees with but a thin rim of sound wood producing enormous crops, but in all such cases, they stand in a rich well cultivated soil.

#### AFTERNOON SESSION—TAXATION OF NURSERIES.

The Assessor of McLean county for the past two years have taxed the nurseries. The nurserymen object to this, and urge that nursery stock is, like any other growing crop, exempt from taxation, no other county, it would appear, has taxed the nurseries.

Mr. Colman, of Missouri, said the nurseries were not taxed in that State, and the general impression among the members that the nursery stock in other States was treated as a growing crop.

*Resolved*, That it is the experience of the nurserymen of this society, that their stock has not been taxed.

An able paper from C. A. Montross, of Centralia, on pear culture, was read. He prunes at all seasons, manures and thoroughly cultivates the soil; has grown three pecks per tree on two-year old trees, set in spring of 1858.

Bartlett, L. B. de Jersey. Belle Lucrative, Bloodgood, Madaline, Duchess, White Doyenne, Flemish Beauty, Seckel and Howell, are with him favorite sorts. Pick the fruit when ripe, and put away to fully mature. Sets in the autumn; thinks dwarf pears will pay, at least his do.

#### PRUNING PEARS.

Dr. Warder said, for wood prune in winter, but never when frozen; but for fruit in summer. If pruned when frozen, the cut wood will turn black, and the stock become discolored with the sap that runs down over the bark. The best time is after the fall of the leaf and until the leaves come out. In that condition we can see the tree in all its parts, and can see better how and what to cut out and what to leave. The subject of summer pruning is a more difficult matter, requiring nice discrimination.

#### TO MAKE CUTTINGS.

Would prefer a sharp knife to cut off cuttings, but in nurseries, where large amounts of cuttings are used, they are cut off in a common cutting box, and often with shears; and he had to confess that they grew as well as those cut off with a sharp knife with the nicest care. This will be interesting to those who have large amounts of willow cuttings to make up. If this view is correct, which is doubtless true, it will make a large saving of labor by using a cutting box for this purpose. It is probable that 4,000,000 or 5,000,000 white willow cuttings will be sent out. To cut these one by one, ten inches long, is a slow and tedious process, and presume the cutting box will be called into requisition.

#### DISTANCE TO SET PEAR TREES.

Nearly all concurred in close planting, say sixteen to twenty feet, so as to shade the ground; all agreed in cultivating the orchard.

#### INFALLIBLE REMEDY FOR THE PEAR BLIGHT

Mr. Colman stated that Mr. J. A. Pettingill of Macoupin county has for several years been in the practice, when his trees were first attacked with the blight, to shave off the outer bark of the trunk or branch affected below the affected part with a drawing knife or spoke shave, and that in every instance the progress of the disease had been arrested. Mr. C. had tried the remedy on several occasions, and named half a dozen other gentlemen who had done so, and thus far the remedy was a success. He is not able to explain the reasons, nor has he full faith in it, but thus far in the history such are the facts. Mr. Hugins corroborated the above in case of Mr. Pettingill. Mr. Bryant had shaved off the affected bark, but without success, cutting off the dead branches was of no use. In all cases slow and rapid growing trees were equally liable to the blight. Several members took part in this prolific theme, and the result is, that when we fathom the cholera, potato disease, and who struck Billy Patterson, that we will probably have light on the subject.

#### EVENING SESSION.

An interesting paper was read from Prof. Turner, of which more will be said when it comes up in order.

Since the opening of the morning session, the number of members has increased to nearly a hundred, and the meeting promises to be one of much interest.

WHITE WILLOW, OR *SALIX ALBA* OF GRAY.

The "White Willow," which has of late been exciting such a furor in the horticultural world, had been set down as the subject for discussion. The attendance had been increased by the arrival of well known faces on the later trains, and all were present with a most eager anxiety to say or hear what is known or might be said in regard to our old acquaintance and new friend, the White Willow.

## WHAT SHALL IT BE CALLED ?

A resolution was offered, as opening the ground for the coming discussion, that the Willow, specimens of which were present, which is the true willow of which mention has so often been made of late, has for its proper name or cognomen, the White Willow. An interchange of opinions, more in the conversational way than in the manner of formal discussions, ensued between Dr. Warder, Dunlap, Bragdon and Galusha, in regard to the proper botanical name, different prominent botanists having seemingly described in the same manner species, to which different names were given. This discussion soon assumed the more business method, upon the President taking the reins, each person expressing his views briefly to the point aimed at. We give from this point the substance of the evening :

Mr. Fell—When Dr. Schroeder says this is not the White Willow, I think he is mistaken. Prof. Hoop of Westchester, whom I regard as having a popular reputation for special knowledge of trees, wrote me that this is the *Salix Alba*, or White Willow."

It is grown largely in Pennsylvania for the manufacture of powder. Dupont makes his best rifle powder of it. None other equals it in that regard.

Dr. Darlington, of Westchester, author of well known treatise on botany, agrees with Professor Hoops in regard to it.

Mr. Bragdon—I called lately on a nurseryman who was selling largely what he called the White Willow. It was not of the same habit of this before us. He said he knew it to be the White Willow, because of its branches separating readily, at its base. And yet this is the characteristic of many Willows.

Dr. Warder—Yes; of all our American Willows.

Mr. Bryant—Very many tell me this is the Powder Willow.

Mr. Flagg—Prof. Turner told me he had on his place three sub-varieties of the White Willow, differing in size, shape, etc.

Dr. Schroeder—This is identical with the *Salix Salicifolia* of Europe. It is used there for many purposes. It is used as a basket willow, and this basket (presenting one) was made from it there.

The only willow that will not break by twisting, etc., is the Palm Willow. There it is only used in church service, the tradition going that on this willow, called "palm willow," with us, and translated "sycamore" in your Bible, Zaccheus climbed to see our Savior pass.

Mr. Bragdon—Had we not better say, "this is the *Salix Alba* of Gray," so that others may know from its description exactly that of which we are talking.

Dr. Warder—Resolutions that this or that is so or so, accomplish nothing in a matter of this kind. Let us go to the books, and after special conference with them and the thing before us, we can resolve with accuracy and make decision useful.

Mr. Overman—There are dozens of willows which have a similar leaf, but this has a characteristic of growth defining it from others. There should be such a description given as would separate this from any different thing that may be sold as the White Willow.

Mr. Minier—The standing of the Society and the value of the tree render it doubly necessary that we should only act knowingly and with caution.

The following were appointed as a committee to ascertain the true name of the Willow under discussion, with such description as should distinguish it from others, and enable the public to identify it: Dr. Warder, Arthur Bryant, and C. R. Overman.

## ITS VALUE AS TIMBER.

The next point discussed was the value of the White Willow for timber purposes, to be grown on our prairies.

Mr. Overman—I am confident that this willow is to change the features of our prairies, at little cost and in a short time. It is good for almost everything. It will make lath, hoop-poles, rails shingles, &c. Not many years and every locality will have its mills sawing out the logs. The bare prairies will become timber regions. You may say these are assertions. They are, however, the expression of my belief founded on these reasons. I believe it will be generally introduced

because of its vitality and certainty of growth, because of its shape and habit, because it flourishes on dry or moist ground, and on moist it will convert the slough into a timber belt, planted on the sides of the slough; because the quality of the timber is sufficiently strong for all purposes for which the hardest woods are not required. It is fine grained, admits of a good polish. Kitchen ware, all wooden ware may be made from it. It is easy to split. You can split a log which will make a hundred rails with an ax. It will make rails lasting twenty or thirty years, if kept off the ground. It grows straight and is more easily worked into shingles than the pine.

The advantage soonest to be reaped will be in the way of fuel. Had I five years ago planted an acre with this, I should now be independent of other sources for fuel, for in five years an acre of it will give more fuel than a family can possibly use.

Mr. Bryant—How about its warping quality for shingles?

Mr. Overman—I don't know.

Dr. Morse—How many cuttings are needed for an acre?

Mr. Overman—At four feet apart, as I set them, it would take a fraction less than 3,000. The ground work of its availability is, that all you have to do is to put a stick in the ground, and it will grow as readily as a tree with roots.

As to the question of fuel, I asked a railroad engineer of the relative value of different woods for fuel. He said that wood was valuable in proportion to its specific gravity; that so many pounds of any wood would raise the same amount of steam.

Mr. M. L. Dunlap—I cheerfully give my testimony in its favor. Meehan says it will grow fifty feet high in dry soil, and eighty feet in wet soil. The labor of planting is nominal. It grows rapidly. Let a man get 1,000 cuttings this year and next year he has 10,000, and the next year 100,000. An acre nine years old will give 100 cords of wood, equal to eleven cords a year. That it splits freely there is evidence on every hand. My German gardener says he has been familiar with it in Europe. He says it makes a board nearly equal to pine, not warping and just as good for all purposes not requiring exposure to weather. It will be so plenty in a short time as to be our cheapest fuel. That man who is four or five miles from timber is blind to his own interest who does not plant one or two acres of this on his home farm for fuel,

he is a practical spendthrift. In fifteen years we shall see it in the mills and being used largely for timber and other economical purposes. In ten years it makes a good dead fence. I have not regarded it as so valuable for posts. I do not regard it as valuable for many purposes as the black walnut and other woods, in itself considered, but as superior to them when taking into account its availability, cheapness, hardness and rapidity of growth. In three years it grows from sixteen to eighteen feet high. Taking these things into view the White Willow challenges every other tree. I believe it to be superior to the silver leaf maple. I have a plantation of that four years old, and in six or eight years I will have more dollars worth of wood if I take them up and set out the willow slips next spring. It is a bounty to the prairies.

Mr. Overman—If it is cut down when not growing, it starts up again and grows with greater rapidity.

Mr. Stimson—He grew this on his father's farm in England. He tried this identical willow. My father and myself examined it critically, and found it our old friend. He says it will last for posts fifty years. There are old gate posts at home fifty years old, solid and strong. He says it will last longer if placed in a stream two or three months, and thoroughly saturated with water. I know it is valuable. Nothing else grows so rapidly or easily. You cannot get farmers to buy maples and the like from nurseries, but these can be stuck in and will grow. The wood burns readily and briskly. We use it for baking; the bakers use it for their big ovens. As to a hedge, I have not so much faith in it, but as a tree there is no doubt about it.

Mr. Minier—An Englishman told me that one would grow rich if he cultivated this willow, while with others he would grow poor. But it is best to move with caution, for we sometimes find ourselves mistaken. Our experience with locusts is an instance, which we once thought the very thing, but now throw aside as worthless. Nature has furnished us with trees natural to our soils and needing but slight cultivation to grow into noble forests, as the black and white walnut. Exotics may cheat us, but those which are indigenous never betray. Now it seems to me impossible in the nature of things that this can be as good for fuel as our harder, denser woods. For building purposes I think it doubtful. For shingles and exposure to weather, it seems to me from the very texture of the wood, that it must be worn out by rains.

The cost is nothing, no matter what the price is. These prairies can never attain their full value till they are protected by belts of trees. Let us move cautiously and recommend it for its true purposes only, and so far as we know them.

Mr. Stimpson—One use to which this has been put with us, and for which no other answers, is the construction of racks, for feeding, and hurdle fences. We drive down the posts and interlace them with the twigs. I can build twenty rods of garden fence, four or five feet high, in a day, that a rabbit cannot get through, and ornamental enough for a lawn. We cut the wood in the winter and do the work in the spring. The poplar or the maple will not do for it; nothing answers the purpose but that long, thrifty, tough, bending willow.

Mr. Kelsey—I don't know about this planting timber to dry up a slough.

Mr. Minier—Nor I; it makes them wet.

Mr. Overman—Land speculators will change their character. Instead of seeking the edge of the prairie he will seek the middle. He will break his 160 acres—break it well. He will put five furrows around to protect the outer rows. He will put in his willow cuttings about four feet apart, and then go about his business. Seven years after he will return to gaze upon a forest. Nothing will have disturbed it but gophers. The fire won't penetrate it. Allowing for the gopherage, and calling each tree worth ten cents, you can make the calculation for yourself.

Mr. Colman of Mo.—I am converted. Mr. Overman, however, is mistaken in regard to the drying up of sloughs by timber. It is the opposite. By shading the ground you prevent the evaporation caused by the rays of the sun.

Mr. Bliss—The farmers tell me that wheat grows heavier near the timber than in the middle of the field. They think it is because the ground there is dryer. In sloughs the roots would interlace and clog the water. I think they will absorb the water in some way—I can't say how. As regards the rapidity of growth, I have one species of the yellow willow which will outgrow the white willow. The yellow will not split so easily as the white. I think the white breaks easily, and that the yellow willow I speak of is tougher. While the ice might strip the white willow down to a bare pole, it will not affect the yellow.

Mr. Dunlap.—As to rapidity of growth, I have carefully compared the white, golden and weep-

ing willows, and the others outgrew the white willow; but this when grown is the most valuable. It has one valuable characteristic, uniformity of size. The weeping willow will grow more rapidly for two or three years, but it has not the upward tendency possessed by this. This is the more natural forest tree, and it is very hardy. Hard winds will break off limbs, but they can be spared. I regard the wood as of a character similar to white wood, and, like it, not fit for exposure to weather. It will answer, however, for many building purposes, especially in that new order of building which makes use of lighter timber, well spiked together, instead of the old style of heavy timber. It will answer for all frame works, and it may become so cheap, and, in other woods, so dear, that it will be most economical for outside purposes, even if obliged to replenish often.

Mr. Huggins.—My experience and observation differ from others as to the rapidity of its growth compared with the golden willow. I have them growing side by side, two years from cuttings, and the white is the more rapid. I have grown this for five years, and am convinced of its value for many purposes. I have it two years from cuttings, eighteen feet long and thirteen inches in circumference at the butt. This one shown you is the same age. Last year it was cut down and forty sprouts came up, averaging ten and twelve feet in length.

Mr. Fell.—I am glad to see that prejudice is melting away. Mr. Minier thinks it is not good for shingles; but gives no practical reason. If, as a fence rail it will last thirty years in the open air, why will it not last as shingles? The rail does not rot, and the only effect seems to be that it grows a little lighter.

Mr. Dunlap—Basswood lasts ten years as a rail, not two as a shingle.

Mr. Minier—I put out cuttings of the white, yellow and weeping willow, and the last outgrew both the others.

Mr. Huggins—With me the white willow went ahead at the end of two years.

Dr. Warder—We have with us other willows superior as an ozier or basket willows. In Pennsylvania, they used to make of this, shovels, scoops and wooden ware.

So far evidence has been adduced in its favor, but no objections have been urged, or difficulties. Let me name one. If when we came out on the prairies with the noble locust, the borer still kept ahead of us, we may find a similar difficulty with this. There are two insects that feed on this



whole family of saliacene, or willows. One is the *Hyphantia textor*, a caterpillar which is very common here, and common all over the country. They will immediately feed on their favorite. They are easily got rid of, by killing them as soon as they are found. Like all other caterpillars, they increase rapidly, and it will not do to let them get ahead, as they come in groups of 200. They must be mashed to give any certainty of their demise. They can be recognized and destroyed. They are a grey color; total length when matured and beginning to scatter, about an inch and a half. The other one is the *claslora inclusa*, about fifteen or twenty of them getting together later. It begins when a little fellow, and curls the corner of the leaf around upon itself, and sews the leaf together. It then turns the whole side over and goes to the next leaf. This is his home and he does not eat it. It begins about September. You will find a bunch of leaves curled up, take them off. The 4th and 11th ring have a black spot, gregarious and easily destroyed.

Another caterpillar infesting the willow is one and a half inches long at maturity, gregarious, feeds in groups of 200, and clears the foliage off as if a fire had passed over the tree. There is also an aphid.

Mr. Bryant—I have not had much experience with this willow. I bought some as osiers, found it worthless for that purpose, and dug them up. The last season I had them they were attacked by a gigantic species of aphid which covered the bark and the stems of the tree completely. If I remember rightly, they were of a brownish color and of the size of a good large bed bug. They attracted large swarms of the white and black hornets, as the green aphid attracts flies.

Dr. Warder—After the honey dew.

Mr. Bryant—Yes sir. It is the only time that I ever saw this aphid, and I don't know as it is common to the white willow. That was seven years since.

Dr. Warder—Dr. Walsh said, fight aphids with other insects, their natural enemies. These are innumerable. One is the lady bug. As to external applications, use alkaline washes, not too strong. These are good for bark lice, also. You can either use a solution, or by dusting ashes upon the dewy leaves.

The hour being very late the discussion was cut off at this point, the horticultural society by a resolution recommending the White Willow on our prairies for timber purposes.

The following resolution, was offered and passed.

*Resolved*, That the White Willow will be found valuable, and we recommend it to all railroad companies within the snow limit, for belts to prevent the snow from drifting on the track.

It should be further added to recommend a trial of it for railroad ties, and should it be found valuable for this purpose, a large saving in the region of our railroads will be effected by it.

#### SECOND DAY.

This morning the attendance was larger than yesterday, nearly filling the hall. There is no abatement in the interest manifested, and the subjects discussed are of great importance to the planting public. The regular order of the morning is the subject of grape culture, but the essayist on this subject begged a half day's delay. In the meantime the discussion on the

#### WHITE WILLOW

was resumed. The resolution presented, was "That the society recommend the white willow for a live fence, where shelter and timber are also an object." H. N. Bliss had been inveigled into the idea of selling a million of willow cuttings by the peddlers for a mere nominal sum, little more than the labor of cutting them, and has the satisfaction of seeing his favorite cutting sold to farmers for seven or eight dollars a thousand. He had been in the habit of giving his neighbors cuttings for shade and timber trees. One of those, to whom he had made the offer of enough, free, for an orchard belt, met one of these tree peddlers who convinced him that the willow of M. B. was not so valuable as his, and succeeded in selling him a lot at eight dollars the thousand. After paying out his money on the word of a stranger he will probably be a wiser if not a better man. We have for a long time been of the opinion that the fools were not all dead as yet, but are kept as the especial food of these itinerant gentlemen. Mr. B. says that the first fence made of this willow was from cuttings stuck down for a shelter belt, but to his surprise, made a good stock fence. He is in full faith that it would make a cheap, efficient and durable fence. He would caution the farmers against the idea that this willow will make a fence without care. The tree peddlers had given them the idea, through high notions in regard to its growth, that would not be realized. These men had obtained specimens of remarkable growth, and which were represented as the ordinary growth of two or three inches in diameter in a year, and that it was not liable to injury by insects or stock, which was false in both particulars. The former of those, Dr.

Warder had exposed, and the other he would vouch for, as all stock will brouse it. It will grow well in highly cultivated land, and also in standing water, as he has thus seen it the past season.

Mr. Bryant—It appeared to him that we had the willow fever a little too high; that we had better move with caution and be admonished of *morbus multievalis* mania of the past. The idea that by setting out a few thousand cuttings in the prairie, and leave them to chance, and have them turn up a forest in a few years, was too much for him. As for a live fence he had little faith in it, at least we had only nine years' experience, and it might be that it would not prove sufficiently durable for that purpose—the trial has been too short—we should wait, be more cautious. Thirty-five years ago the Honey Locust was recommended for a fence, but it has not succeeded, and he did not believe that it would do so. For the benefit of Mr. B. and others we will state that less than that time the Cherokee Rose was recommended by one of the prominent editors of the N. Y. Tribune, then a Western farmer, but no trial has been made of it.

Mr. Emery did not believe that any person who could see the fences in Lee county would any longer have doubts on the subject.

Mr. Phenix has seen trees of it set in a fence row, thirteen years old two feet in diameter near the base, and this on very dry land. The trees had branched and made a good fence. He thinks it will make a good fence on all good soils. The trees mentioned were 30 feet high and would make a cord of wood each. He thinks also that it will prove long lived, as it is tenacious of life, under almost all conditions. It will make rails, hewing timber, and is adapted to many other purposes. Would set it about one foot apart in the row, for a fence, and use but the one row for even screens, and if it is possible that this is too close.

Mr. Minier would recommend that in planting that the line of intended fence be mulched with hay, straw, or corn stalks at once, and in the spring set the plants by using a sharp spade to cut through it, to put in the cuttings; in this case no further culture would be required. The same treatment will answer for the osage or other trees used for the purpose of timber belts.

Dr. Schroder would not recommend it for orchard fencing, as it will prove a great harbor for insects, more especially the *melolonthus*. Had we the sparrows, as in Germany, we would get rid of many of our insects, but until we get the

sparrows he would not plant the willow. Thinks it will not make a first rate fence.

Mr. Sherman says it will stand cutting, having seen it cut back in the fence to four feet, and making good fence—will grow well on dry ground—can be cut back at any age.

E. S. Pike has seen trees that have been cut off, for the past forty years, once in three years. Each time cut a little higher. These were two or three feet apart, and none of them had failed. They all grew of a uniform height. In a fence they diverge from a vertical position, yet the bolts are straight.

Mr. Smith of Willow Creek, cut two crops of grass close under this fence, being a better yield than a few rods from it. Has a letter Mr. Dupont saying that he has posts standing thirty years and yet sound.

Mr. Gill had seen the fence of this willow in Lee county, and could testify that it made a good fence, and he had no doubt that this willow will make a first rate fence, in all respects as good as the Osage, of which he has a large amount, and in some respects better than that plant, as it will afford shelter and fuel. Intends to plant largely for fences for his sheep farm. Cattle and sheep will browse on it.

Mr. Huggins had no doubt that it would make a good fence, but as to a hedge, he had some doubts.

Mr. Galusha would state that though the sward grows it cannot be grown close up to the trees, yet a good crop of grass can be procured, so that there is no loss of space in consequence.

#### IMPOSITION.

Mr. Bryant said that many of our native willows so closely resemble this in color of the bark, that it would not be detected in the cuttings, and would advise caution in the purchase. We are told here by reliable person that parties are now cutting large quantities of our native willow to be palmed off for this white willow.

C. D. Bragdon would advise caution. He had no doubt that where a fence, shelter and timber are required, that it would prove valuable.

Mr. Edwards says that it is used, near Cincinnati, for the ribs or frame work of baskets, but not for the filling, and that he purchased it as a basket willow.

The question of its value for a live fence was now put and carried, we believe, without a dissent.

Dr. Warder reported on the name, it being the white willow, or *salix alba* of Grey. In the report he says that it cannot, in the bundle of cuttings, be distinguished from some of our native willows, and recommends caution in their purchase.

This closed the discussion of one of the most important questions ever taken up by this society. The debates were animated, statistical and argumentative, and the whole subject most thoroughly sifted. In the commencement of the debate there were several doubters, but as proof after proof came out in its favor, they one by one gave in to the array of facts, and ceased all further opposition.

During the winter millions of cuttings will be sold to go to all parts of the prairie country. We have not time to write out all that was said in regard to the fence making tree, but will do so at some future time.

#### AFTERNOON SESSION.

Dr. Andrews of Rockford, read an essay on grape culture, in which he took some new ground.

That the idea that grapes cannot grow in our soil without a large amount of bones, dead cattle and other rich manures is an error. The soil is sufficiently rich. He has fruited the Golden Chasselas in his garden in the open air for the past three years, and would recommend the trial of foreign grapes together with native sorts. He thinks with winter protection all grapes of both countries can be successfully grown. High land should be selected, for the grape delights in air and sunshine. Plant shallow—first year grow one shoot, the fault is to grow too much. When too much fruit is allowed to a vine, the ripening is retarded and of less value. Shade retards ripening, therefore the roots should be exposed to the sun.

The Delaware, Hartford Prolific, Concord and Diana can be planted anywhere, and need little care. The Delaware he would place at the head of the list as the most valuable. This may all be well enough for Rockford, but we happen to know that this grape will not do equally well in all parts of the State. In our own grounds it is among the least valuable as yet.

It was moved to strike the Delaware from the list, for general culture. While it was admitted that on all limestone soil it does well, and to be recommended, but on freestone soil has not given so good satisfaction.

\* Messrs Dunlap, Dr. Schroder, Shepherd, Baldwin and Sherman participated.

Dr. Warder has had the Delaware for the last ten years, and up to this date has not been able to produce a sufficient quantity to set before a friend. Though thus unsuccessful his neighbors had succeeded. At Kelly's Island it has grown well, and fruits abundantly and large quantities have been sent to New York city and sold at a high price. Before putting the question to vote, it was withdrawn with a view to give this highly popular grape a further trial in the different soils of the State.

#### PRUNING AND GRAFTING THE GRAPE.

Dr. Warder said that grafting the grape was an easy and certain process. Uses pieces of roots. Mr. Andrews had stated that without severe pruning grapes would not fruit well. Dr. Warder would ask how it was that the wild grapes of our river bottoms bore good crops, they certainly are not much pruned? How is it that the Isabella grows over trellises and high trees and fruits so abundantly? If this is so, may we may not prune too much? All of this but proves that different grapes require different treatment, and while some will do well severely pruned, others will not. The Doctor illustrated pruning with chalk in hand, and as we cannot follow without drawings, our readers will be compelled to forego the information so valuable to grape growers. Dr. Schroder went through with pruning with the real vine, much to the satisfaction of the members. The interest manifested in this department is but an index of the stronghold that fruit growing has now attained; and the time cannot be distant when our markets will be better supplied with, at least, the small fruits.

#### ASH LEAVED MAPLE.

The ash leaved maple of our river bottoms, also known as the box elder, was recommended by some for its sugar producing qualities, but the testimony was not sufficient to warrant the Society to take action on it. Somebody says that its sap is as valuable as that of the sugar maple for sugar, and large quantities can be made from it; all of which needs further proof.

#### EVENING SESSION.

First in order was the essay on apple culture by S. G. Minkler of Specie Grove. A valuable and interesting paper.

A committee of five were appointed to attend the meeting of the Missouri Fruit Growers Association, at St. Louis, on the second Tuesday in January next, consisting of Messrs. Flagg,

Overman, Bragdon, Fell and Galusha. Dr. Warder then read a most able and comprehensive essay on the cultivation of the orchard.

An animated discussion arose on this subject. Some contending for the constant culture of the orchard, after it came into a bearing condition. While Dr. Warder contended for a seeding of clover. This would suit his system of close planting and low heads. In fact after such an orchard comes in full bearing, it will so shade the ground that little other crops could be grown.

Mr. Minier would not plow an orchard, but mulch or seed down the clover and turn in the hogs.

Mr. Flagg said a gentleman of Alton had tried lime on his orchard without any perceptible results, but with clover the result was perceptible in a short time, proving an advantage.

Dr. Warder had seen good results in the orchard, but generally after turning under a heavy growth of grass. This course is popular in Pennsylvania, and it has been found profitable.

The essays of Dr. Warder and of Mr. Minkler were adopted.

The Rockford Horticultural Society invited the Society to hold its next fair in Rockford, which invitation was accepted and the Executive Committee directed to fix the time.

#### THIRD DAYS PROCEEDINGS.

This mornings the first thing in order was the reading of an essay by J. T. Little, of Dixon, on the currant. Mr. L. has had a large experience with both the old and new sorts; but he places the Red Dutch currant at the head of the list. After the reading, several took part in the discussion. The points made were, that the red Dutch was the best of all for common use and for wine. The black Naples, generally known as the black English, was highly recommended for jelly and wine for medicinal purposes. The leaves were valuable for sore throats. But few persons will eat the fruit on account of its musky flavor, yet for its valuable qualities in the domestic *materia medica*, it should be more extensively planted. It is readily propagated from cuttings, but is not so hardy as other currants—needs careful pruning and a sheltered situation.

No one recommended the planting of currants nearer than four feet each way, and most members recommended four by five, and a few four by six feet. This latter distance we have found the best. Mr. Fell, however, plants his rows six feet wide, and three feet in the rows, and

adds to this an intermediate row of dwarf apples and pears. These will shade the ground, and partially the currant, which is desirable. Thus far his plantation has done well, but we apprehend that in a few years it will be too much crowded.

The Victoria was considered valuable for its late ripening, after the other currants were gone. Among white currants the white Dutch and white grape are the best, but neither of them more than moderately productive. There is a Yellow flowering black currant introduced by the explorers, Lewis and Clark, from the Rocky Mountain range, and called the large fruited Missouri. It is said to be a profuse bearer, with qualities similar to the black Naples, with the addition of being as ornamental as the common yellow flowering, which is so desirable for the aroma of its flowers in early spring. The president dries it in sugar, and uses it in puddings in place of the Zantee currant, and considers it equally valuable. It should have a more extensive trial.

#### VARIETIES OF GRAPES.

Dr. Shroder said he would make a distinction between wine grapes and table grapes. This was assented to, and table grapes first taken up, when the Doctor nominated the Concord as the most valuable and hardy; will grow anywhere with or without much care; is vigorous and always healthy; must not be cut back too much; wants room; it bears early; before eating should lay in the house two or three days, when it will be found much more delicate; this gives it a valuable shipping quality. Andrews said its season was too short at Rockford. This is one drawback, as it can only be used from the vines some six weeks, but its keeping qualities does not appear to have been very fully tested, and we see no reason why it may not keep well. It was unanimously voted a place at the head of valuable table grapes.

#### HARTFORD PROLIFIC.

This valuable early grape came up next. Its season is short, but being one of the earliest, cannot be dispensed with. It is hardy and productive—not quite as good in flavor as Concord, having a thicker skin. It ripens during August, and hangs a long time on the vines. Dr. Schroder next called up

#### HERBEMONT.

The Doctor said it was a good table grape, as good if not better than the Delaware, and much

more valuable for its productiveness and adaptation to all parts of the State. It has the advantage of late flowering which often saves the crop from frost, while others are cut off. In this respect it holds the same position among grapes that the Rawles Janet does among apples. Sherman said it was a little tender, and should be protected in winter; but as they protected all their grapes at Rockford, even to the hardy Clinton, this was no objection. It was added to the list.

#### TAYLOR'S BULLET.

a well known Southern grape, was introduced by Colman of St. Louis, but was not sufficiently well known to be added to the list; but from accounts of it from several members, it promises to be valuable. It is hardy at this point, productive and vigorous. It is a white grape.

The Diana, after a warm discussion, was lost by a small majority. Its tough hide, as some called it, carried it down.

The Isabella and Catawba were added.

The subject of wine grapes was referred to a committee consisting of Dr. Warder, N. J. Colman and Smiley Shepherd.

Mr. Samuel Edwards read a most valuable essay on the value and culture of evergreens. Mr. E. is an enthusiast in this department of arboriculture and has the largest collection in the State, embracing not only all the hardy but many of the half hardy varieties. For years after he had commenced planting evergreens, but few persons had faith that they would grow, and it was a generally received opinion that the prairies were not well adapted to the growth of trees, more especially this class of trees, hence the sales did not warrant the cost of growing them, and Mr. E. had to struggle on with his hobby. Now when he has noble spruces and pines about his grounds, thirty feet high and of the most symmetrical form, others can see, and the old foggy notion has had to fade out and give place to the pleasing fact that nowhere do they flourish and grow more rapid and beautiful than on our prairies. But among all good there is evil, and twice has Mr. E. imported the Canada Thistle in the roots of his trees, and which has cost him no small amount of labor to eradicate from his grounds. We give this as a caution to all those who receive evergreens from the Canada Thistle region. Many of our farmers do not know this pest, but those who do will need little admonishment in regard to it.

Mr. E. recommended as the best time to re-

move evergreens, early in the spring, before the starting of the buds. They can also be moved the latter part of summer after the growth is complete, and during a long rainy spell in summer, but this is not so safe.

This is precisely the same that we have given annully for the past half a dozen years, though in almost direct conflict with high authorities at the East. We therefore repeat that early spring, and before the swelling of the buds, is the very best time to remove evergreens. Mr. E. places the Norway Spruce at the head of the list, and strongly recommends it for shelter belts.

At the close of the reading, several persons made short speeches in favor of evergreens, some preferring them for belts to deciduous trees, but the larger number did not concur in this. For low screens they are the best, but we cannot wait for them while we have the white willow, the ash, the maple, and other rapid growing deciduous trees, that make not only shelter in a short time, but fuel also.

#### SHELTER BELTS.

M. L. Dunlap followed with an essay on the above subject. He recommended these belts on the southwest and northwest, but none on the East.

As there are some new features, or some not well understood, in this essay, we may at some future time give it entire, and pass over a further notice of it at this time. Its doctrines were fully approved by the Society as orthodox.

#### REPORT OF COMMITTEE.

The Committee on Communications made a report as follows:

Your committee to whom were referred the communication of Prof. Turner and Dr. J. A. Kennicott, desire to report that by the former the following suggestions were presented for the consideration of the Society.

1st. The expediency and economy of making wine from Rhubarb or pie plant.

2d. To plant cypress as a living trellis for the grapevine.

3d. The trailing juniper as a living ornamental mulch for the peach tree.

As to the first suggestion, your committee recommended that the juice of the grape, and of the grape alone, be considered and designated as wine; and that all liquors, the results of vegetable compounds, be known by such names as will not be likely to confound them in character and quality with the products of the vine.



To the second suggestion, we recommend that the cypress may be taken as an ornamental substitute for trellising the grape, but not usefully available in extensive vineyard culture

To the third suggestion we present as our opinion that, however ornamental such mulch may be, the protection it could afford to the top of the tree would be too feeble and uncertain to warrant any expense in securing its use.

In relation to the suggestions presented in the communication of Dr. Kennicott, your committee would desire to say:

1st. That the taxation of nurserymen, by requiring them to take out licenses for the pursuit of their special calling, is not founded upon any just distinction between these and other agricultural producers. If any branch of productive agriculture is to be taxed in this manner, we can see no good reason why all should not be.

Neither of the members of your committee is a nurseryman, and we cannot understand why our plants and immature horticultural products may not be subjected to taxation with as much propriety as those of the nurserymen. By our State laws all "growing crops" are exempted from taxation, and in practice all products of the nursery are regarded as such.

Your committee, therefore, respectfully recommend that the Commissioner of Internal Revenue be requested to reconsider his decision in the premises, and so modify it as to avoid what seems to be an unjust discrimination against this important interest.

2d. The establishment of a "Department of Agriculture" by laws passed at the last session of Congress, we regard as an advance step of the greatest importance; and, as a national recognition of that interest which lies at the very foundation of all other material interests of the United States, we hail it with pleasure.

Your committee cannot forbear to express the hope that the next step which shall place them upon a level with the other divisions of the Executive Department of the General Government, making its head the peer of other cabinet officers, will not long be delayed.

3d. Your committee desires to say that thus far in the administration of the new department, they have observed nothing to condemn but much to commend; that in the energy and intelligence which seem to characterize its management they discover an earnest of increasing usefulness; that it would, perhaps, add to the confidence now felt in that department if some prominent, able agriculturist from the great

Northwest were associated in its management; and, that they recommend to this Society to extend to the present head of that Department the assurance of their hearty sympathy and co-operation. Respectfully submitted.

GEO. W. MINIER, Chairman.  
SMILEY SHEPHERD,  
JOHN P. REYNOLDS,  
Committee.

#### ELECTION OF OFFICERS.

The election of officers being in order, this interesting and always exciting subject was taken up and in a very short time harmoniously disposed of.

*President*—G. W. Minier of Mackinawtown, Fulton county.

*Corresponding Secretary*—W. C. Flagg of Moro, Madison county.

*Recording Secretary*—W. C. Ferguson of Rockford.

*Assistant Recording Secretary*—K. H. Fell of Bloomington.


*Treasurer*—Samuel Edwards of Lamoille, Bureau county.

*Vice President at Large*—O. B. Galusha.


*Vice Presidents*—District No. 1; J. Periam, of Hope, Cook county. No. 2: C. N. Andrews, Rockford. No. 3: A. R. Whitney, Franklin Grove. No. 4: J. H. Stewart, Quincy. No. 5: W. A. Pennall, Granville. No. 6: J. O. Dent, Wenaona. No. 7: M. L. Dunlap, Champaign. No. 8: O. M. Coleman, Bloomington. No. 9: C. C. Sturtevant, Beardstown. No. 10: J. Huggins, Bunker Hill. No. 11: C. A. Montross, Centralia. No. 12: George Barry, Alton. No. 13: T. J. Evans, South Pass.

This Society has always had a good set of officers, without the least jealousy among them. The friends of Mr. Galusha wished to put him in the chair the second time, but as it has been the practice to elect a new man to this office, Mr. G., as an endorsement of his acts, was elected Vice President at large, a position highly complimentary to him.

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 The redemption of soiled postage stamps in New York city, has thus far amounted to the sum of one hundred and fifty thousand dollars.

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 The Charleston Mercury publishes a table in which it concedes the death, on the battlefield, in hospital, etc., of one hundred thousand men since the war commenced.

## THE ILLINOIS FARMER.

BAILLACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, EDITOR.

SPRINGFIELD, JANUARY, 1863.

### Editor's Table.

The year 1863 has come greeting, making another mark on the check-roll of time—a year pregnant with great events to the Western world. We hope to see the rebellion crumble away as its days and weeks march on, and before the plow shall be again afield; that the vast armies now facing each other, may return to the culture of the soil, and to the various industrial pursuits of life.

The whole of this great struggle has grown up at the beck of a few ambitious politicians, who have fired the public heart and instilled into the masses their own bad principles. Those men we hope to see brought to a speedy punishment of their crimes; but this will not bring back the thousands of lives that have and will yet be sacrificed in this cause. It will take years of prosperous peace to wipe out and repair the damage done in this short war.

Should the war continue, laborers will be scarce and wages high. It is, therefore, of no small importance that we economize the labor at hand. If we cannot work all of our lands, select the best, and during the winter, seed the remainder down to hards-grass and clover.

It is better to till a hundred acres well than to run over two hundred poorly.

The fact is, with a scarcity of labor we cannot afford to cultivate poorly. It is only when labor is cheap and taxes low, that we can afford to half till our crops. With dear labor, we must

cultivate more highly or we will find a small if any margin for profits.

With the opening of the Mississippi, we may expect an advance on the price of our farm products, the profits of which are now swallowed up in freight by the Eastern lines of transportation that are now gorged with our staples.

This state of things cannot long continue, and the great river must be opened. We do not believe the temper of the river States can much longer be safely tampered with. It may suit the Eastern railroads and Eastern manufacturers to continue this state of things, but it is our duty to tell them that every day's delay is estranging the West from them. Let them take heed in time.

The West has poured out its blood on every battle field of the war, while Vicksburgh has been left standing to bar our transit to the markets of the world. Let Vicksburg fall and give an outlet to the west, and the west will be able to pay her taxes, to purchase largely of the east and continue her immense contributions to the war.

We hope no effort will be spared by those in power, to see that the west has justice done her, in the early fall of that nefarious city; that a healthy competition may again grow up between the various lines of transportation, that a small share of profits of farm products may be left to the producer.

**FLAX COTTON.**—This enterprise has not died out, but is being pushed forward. Mr. Clemens of Rockford, has moved his headquarters to Chicago, and is now receiving the raw staple to work up in flax cotton, ready for the manufacturer. We met him a few days since at Bloomington, engaged in purchasing flax straw, a large amount of which he had already secured. Small breaking machines will be sent into the country to divest the straw of a large share of the woody stalk when it is pressed into bales and shipped to the city, where it will undergo the chemical processes to prepare it for the spinner.

We are not sanguine that it can be made cheaper than cotton or supersede it where the latter is as valuable, but there are many uses for linen that cotton cannot fully supply; these will, at least, be benefited in the present condition of things, and we therefore wish the enterprise a full meed of success.

We have promised to visit the works soon, and shall hope to have a good report of them.

The culture of flax for the seed alone has proved profitable the past season. With the present high rate of exchange, it must continue to rule high, and we therefore, commend its culture to all those who have a ready market near home for the seed. In addition, if they can sell the straw for the purpose of flax cotton, all the better.

**WHITE WILLOW.**—In the advertising department will be found the above willow, for sale by E. S. Pike.

Mr. P. has an abundant supply of the genuine White Willow, and no green-horn need fear to be imposed upon by him. But we have this to say, do not take the word of any agent, however honest he may appear, but demand the authority. It is not the agents of Mr. P. who may cheat you, but the villians who would palm themselves off as such. Remember then, that you can get the genuine White Willow of E. S. Pike and his agents, while you may get some other worthless Willow of other parties, or of pretended agents. This we think is worth looking after, for beyond the cost of the cutting there is a large account to settle—the labor of putting them out—and the deep bitter disappointment when the deception presents itself, a veritable living fact. Better, far better, that you pay ten, or even fifteen dollars a thousand for genuine cuttings, than to receive—as a gift—spurious ones. In this connection we cannot too strongly urge the importance of planting an acre or two for a wood lot in addition to the farm, for though the fence itself will alternately furnish wood and timber, yet you can cut it sooner, or at least will be disposed to do so, from the wood lot. It will require something less than three thousand cuttings to the acre at four feet each way to plant the timber lot, and this in ten years will furnish a large amount of wood, while more or less can be taken the fifth or sixth year.

It was truly said by one of our farmers at the Bloomington meeting that few people would buy maple and other trees for the timber lot, while with the willow, the cuttings could be so readily set out that few would now do without them, and timber growing might well be said to date its real beginning in the spring of 1863.

We would further state that the cuttings of Mr. P. are mostly from hedges of three and four years old, and are the most vigorous that we have seen. The tips and pithy portions are not

included, consequently will require no further assorting to insure a good stand.

**OHIO FARMER.**—This paper is again in the field, published at Cleveland by Harris & Fairchild. Col. Harris, of the Field Notes is the agricultural editor, and is to travel extensively. The Ohio Cultivator will hereafter be sent out from the same office. These are the only agricultural papers that we know of in Ohio, and we trust that they will be fully sustained.

**SICK AND WOUNDED SOLDIERS.**—We are in receipt of the report of John R. Woods, State agent to visit hospitals of Illinois sick and wounded soldiers.

The report is an able presentation of the indomitable industry of Mr. W., one of the best men for such an undertaking, and the Governor was fortunate in securing his services.

**THE GARDENERS MONTHLY.**—It is with pleasure that we learn that this valuable work is fully sustained, and that there is not the remotest intention of a discontinuance. This is the more gratifying, for the reason that it is edited by a man who works at the business of which he writes, thus giving us practical lessons direct from the garden. Too much of our writings on gardening have been but a rehash of European work and practice, compiled in the library, and partake more of elegant writing than of sound practice adapted to our soils and varying climate. It is, therefore, with pleasure we commend the work to our readers. We club it with the FARMER at the low rate of two dollars, or address the publisher, W. G. P. Brinloe, Philadelphia, Penn., \$1 50 for single copy.

**BRIGHT ON GRAPE CULTURE.**—We received this excellent work from the Prairie Farmer office, where it is on sale. To those who have but half a dozen vines, this work will be found valuable, and should be consulted. The new work by John Phrin on Garden and Vineyard Culture in the Northern and Middle States, we highly commend, but have not had an opportunity to examine it.

Grape culture is now receiving so much attention on the prairies that it is important that we have all the light possible.

During the past year, the Horticulturist has given a series of chapters on Grape Culture,

more or less valuable, and worth the subscription price of that Magazine. With all this light we ought to succeed.

The discussion at the Bloomington meeting, presented a fund of practical knowledge, and we regret that a more full report was not made. But enough will be given to show what can be done.

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**MEDICAL EXAMINER.**—The October number has just reached us. The "Report on the Chicago River" is interesting to the general reader and rich in scientific facts for the practitioner of medicine.

Address Medical Examiner, Chicago, Illinois. Send \$2.

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**VIRGILIA LUTEA.**—Seeds of this desirable plant were presented to members of the Horticultural Society at Bloomington, by Dr. Warder. The seeds should be treated similar to the apple—either frozen in sand or soaked in warm water, or they may not germinate.

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**CHINESE COTTON SEED.**—Jno. A. Griswold, of New York City, formerly President of the Illinois Central Railroad Company, has imported from the north of China over one and a half tons of Chinese cotton seed. This seed is now at the depot of the Great Western Railroad, in Springfield, Illinois, for sale at the net cost of the seed and transportation.

That it will prove valuable in the south and central part of the State, there can be no doubt.

It is well known that all seeds from that part of China have done well in our State, and have their experiment in cotton seed.

Those wishing the seed will apply to L. Tilton, Esq., President of the Great Western Railroad, at Springfield.

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**BARNUM'S AUTOMATIC "SELF-SEWER" GUIDE.**—We have one of the above little gems of the household, and our better half is delighted with it. The cost of it is but a trifle, and it is adapted to all of the many popular sewing machines of the day.

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**SEEDLING EVERGREENS.**—We would call the especial attention of planters and nurserymen to the card of Robert Douglass. The climate at Waukegan, on the west bank of Lake Michigan,

is well suited to the growth of evergreen seedlings, and under the skill of Mr. D., success is complete. His evergreens are among the best that we have seen; in fact, from the large amount of evergreen seedlings that we have from time to time planted within the past sixteen years, none have given us so good a stand as those from the nursery of Mr. Douglass.

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### Field Culture of the Black Cap Raspberry.

SPRINGFIELD, ILLS., DEC. 16, 1863.

*M. L. Dunlap, Esq., Editor Illinois Farmer :*

You say that you know of no one besides yourself who had attempted the field culture of the Black Cap Raspberry, but allow me to say that you cannot claim all the honor of growing this very pleasant fruit by the acre. I planted over an acre the past season, which produced a good crop. Last spring I planted out twenty-five hundred plants, but in consequence of the drouth, lost two-thirds of them. Will try again the coming spring.

I have just finished reading the last number of the FARMER, and it is with pleasure that I observe that while many of your cotemporaries are giving up under the war pressure, that the ILLINOIS FARMER is to be improved and a fresh impetus given to it. This must be gratifying to the farmers and fruit growers of our State, and I will close by wishing you success in the praiseworthy enterprise of giving the people of this great and growing State a paper devoted to the "Farm and Garden." It is always a welcome visitor at our fire-side.

Yours respectfully,

A. J. KANE.

— We often receive similar words of encouragement, and it shall always be our aim to merit them. The appearance of the FARMER is not what we wish. A distance of ninety miles intervenes between us and the types, hence we have made no attempt at arrangement. We are now promised a proof reader, and more attention to the mechanical department, to be followed with an entire new dress. So soon as the times will warrant, the publishers promise an enlargement. From present indications this will be at no distant day. The price of the FARMER is very low to clubs, and a club of twenty should be made up at every post office in the central portion of the State.

**TO HORTICULTURISTS EVERYWHERE.**—I have in my hands a quantity of volumes of the proceedings of the North-Western Fruit Growers Association, which I will donate to the Society for the purpose of aiding in printing the minutes for the last two years, as follows: Any person not a member of this Society, who will send \$2, shall receive per express, the "Transactions" for four years already published, the forthcoming volume and the last volume of the "Transactions of the Illinois Agricultural Society." This will entitle the applicant to membership in this Society for the year 1863.

A. R. MINIER.

Franklin Grove, Lee Co., Ill.

The above liberal offer I endorse fully, as President of the Illinois State Agricultural Society.

GEO. W. WHITNEY.

All papers favorable to the cause of Horticulture will please copy."

— The above is a rare offer and one that should be promptly accepted. The volumes offered are exceedingly valuable and out of print. No other person has full sets of the North-Western Fruit Growers Association, and we do not think the stock of friend Whitney inexhaustible. The Transactions of the State Agricultural Society are worth the two dollars without any other consideration.

**SORGHUM.**—A State Sorghum Convention is to be held in Columbus Ohio, on the 6th of January next. It is estimated that twelve millions of gallons of syrup have been made during the past year. The Buffalo Commercial says: "We see it stated that in the central part of the State, parties are ready to buy up all the syrup that is offered to supply the Cincinnati market. The retail price generally ranges from fifty to sixty cents per gallon. In all parts of the State the sorghum crop has been remarkably good this year. There have been about 5,000 mills sold in the State during the past summer, which, added to those sold in former years, makes an aggregate of about 11,000.

**STATE FAIR OF OREGON.**—Simeon Francis, formerly Corresponding Secretary of our State Agricultural Society, is the President of the Oregon State Agricultural Society, and which held a fair in October last. In the address by Mr. Boise, we clip a truth as valuable to the west as to Oregon:

"Farming here must be modified to suit the climate and soil of the country. The farmer who comes hither from Illinois must change his corn to wheat and other small grains, and generally adapt himself to his new circumstances. Fruit cannot be produced here in pasture and meadow lands, as in the Eastern States, but must be grown in gardens and cultivated in fields. So we cannot rely on the publications of farming in the east as a sure direction for farming here. A new system is to be developed, and it is for the industry and talent of the people of Oregon to develop it, and this is the proper province of practical working men."

—Here the farmer must adapt himself to new modes of culture and make selection of new staples.

**THE RURAL NEW YORKER.**—This journal, hitherto so popular at the west, has become more western, having taken editorial rooms at No. 69, State street, Chicago, which are in charge of C. D. Bragdon, for several years editor of the Prairie Farmer. Had not friend Moore always shown a sunny side towards the west, we might be disposed to take umbrage at his invasion of our domain, but as he has had the good sense to employ a western editor, and also in consideration that he has always been agreeable and instructive, we welcome him to a closer acquaintance. Push on the good work friend Moore, there is room for all, as we need the assistance of all able pens to advance the great Agricultural and horticultural interest of the north-west.

**AGRICULTURAL PAPERS OF THE WEST.**—The oldest of them is the Prairie Farmer, now in its twenty-third year. It has been long acknowledged as one of the valuable institutions of the west. Weekly, \$2. Emery & Co., Chicago.

**FARMERS ADVOCATE.**—This has been changed to a monthly at \$1. J. Bonham, Chicago.

**IOWA HOMESTEAD.**—A valuable weekly agricultural paper from the capitol of Iowa. Mark, Miller, Des Moines, Iowa. \$2.

**WISCONSIN FARMER.**—A journal that the farmers of Wisconsin could not well do without. Monthly, \$1. J. W. Hoyt, Madison, Wis.



**THE COUNTRY GENTLEMAN.**—This popular journal comes to us regularly. As a scientific and practical agricultural work it has no superior. It should be taken by every intelligent farmer throughout the country.

Weekly, \$2.00.

The Cultivator is published monthly from the same matter at fifty cents.

The illustrated Register of Rural Affairs, twenty-five cents.

Address Luther, Tucker & Son, Albany, New York.

CARBONDALE, Nov. 18, 1862.

**PUBLISHER ILLINOIS FARMER:**—I have not received the Farmer since July. What the cause is I do not know. The Illinois Journal, from the same office, comes regularly. Will you endeavor to ferret out the cause.

I duly appreciate the valuable information which the FARMER contains, and do not want to do without it. I have learned more from the perusal of its pages than from any other one agricultural paper that I have read, and I have been a subscriber to several during the past fifteen years.

Its instructions in regard to horticulture are most valuable, and "Rural" has most assuredly the tact of imparting his knowledge to others in such a way that it can be understood. Please send me the back numbers if possible, as I wish to have my files complete.

Yours truly,

JAMES HAYTON.

—We have mailed the FARMER regularly, and why it has not been received we cannot say. It has probably fell into the hands of some Egyptian, who could not afford to pay for a copy, or to do without it. We can but hope to be more successful hereafter by trying it on another route.

PUBLISHERS.

**WAR CLAIMS.**—Many of our readers have sons and brothers in the army, and of course, more or less unadjusted claims with the Government. It is pretty well known that all military claims must be drawn up with the utmost care or delays will occur. It will therefore be found the cheapest in the end to employ some person who is familiar with all the forms and modes of doing business with the several departments. There will also grow out of the war a large number of pensioners, whose claims will need

adjustment. Under this state of things there will of course grow up innumerable war claim agencies, composed mainly of sixth rate lawyers, without practice, or integrity. To discriminate between the really worthy agent and the pretender will not always be possible, but care should be exercised in the premises. Among many worthy firms of this class, Mr. George S. Thompson, of Springfield, stands in the front rank, and we most cheerfully commend him to our readers having claims of this character. As a Pension Agent of the Government, Mr. Thompson served twelve years in Wheeling, Virginia, and is, therefore, familiar with all the minutia of the business.

In collecting claims for recruiting, Mr. T. has been very successful. His business is becoming large, but with the assistance of several clerks he is enabled to attend to all calls, with his usual promptness.

His card will be found in another part of the FARMER.

**APPLE SEED.**—We would call the attention of those in want of apple seed to the card of Mr. Box. He will supply them at a low price.

**HEALTH OF THE WEST.**—We cut the following from the census report of 1860, showing the mortality of each section.

States.	Population.	Deaths.	Proportion.
New England.....	8,132,283	45,359	1 to every 68
Middle States.....	7,458,885	84,620	1 to every 88
Western States.....	8,563,377	89,602	1 to every 95
Southern States.....	12,315,374	174,095	1 to every 71

By this it will be seen that the West is ahead. We hope this will put an end to the old stories in regard to the unhealthiness of the West; more especially from our Eastern friends, who stand 68 to 95, a pretty wide margin.

The West has suffered in former years, from the settlements on rivers and near the timber, and from various exposures. But as the country becomes cultivated it has improved in dryness, and consequently in healthfulness, until it now stands the highest of any section of the Union. Will not our traducers make a note of this and do us justice?

**OREGON FARMER.**—This interesting paper comes to us quite regularly, and we always welcome it with pleasure, though, generally two month's on the way.



**VALLEY FARMER.**—Monthly, \$1. N. J. Colman, St. Louis Mo. Especially adapted to the latitude of St. Louis, and the south part of our State. It is ably edited, Mr. C. being practically engaged in farm and garden operations.

**ILLINOIS FARMER**, with which the readers of this paper are supposed to be somewhat acquainted with.

**THE RURAL NEW YORKER**, in which the west have a part interest. Weekly, \$2. D. T. T. Moore, Rochester, N. Y., or 69 State street, Chicago.

**FARMERS AND PRODUCERS ASSOCIATION.**—Several meetings have been held at Ottawa and Dixon to organize and further the interest of the above named association. Its object is to combine the farming interest in regard to currency and other matters of legislation.

We have not had time to attend the meetings, and hence are not so fully posted. Another meeting was to have been held late in the month, to perfect the organization.

**THE WHITE WILLOW.**—The following is part of an advertisement cut from one of our exchanges. It is decidedly rich:

"It is of European origin, but in the last twenty years has become thoroughly Americanized. It grows only from cuttings, which should be about the size of a pipe stem, and about ten inches long, and carefully set six or seven inches in the mellow soil, at any time from the first of May until the last of June, and again from the first of September to the last of October. They should be set one in a place, four feet apart, and when carefully done, not one in a thousand will fail to grow. They should be cultivated three years—they will then take care of themselves. No timber grows so rapidly. In five years they will be large enough for posts, which, instead of rotting in a few years, will, if properly set at the right time, grow to a splendid tree, large enough in twenty years to make a saw log three feet in diameter. It grows tall and straight, splits freely, and the

BOARDS, RAILS, SHINGLES, ETC.,

made from it are quite equal to white pine. By setting limbs the size of a hand spike, at an angle of forty-five degrees, two feet in the ground

and five feet out, you can have a live fence in any wet ground—but we do not recommend it in any other."

**CAST STEEL CAST PLOWS, CAST IN IRON MOULDS.**—These plows are now for sale in Chicago. We have not seen them, but from what we hear, they are superior to the old style.

**AMERICAN STOCK JOURNAL.**—We regret to announce the following in regard to this valuable journal, but hope it will be resumed at no distant day:

"The present number closes the fourth volume of the American Stock Journal. After much consideration we have determined to discontinue the publication of the Journal for the present. We are aware that this announcement will disappoint those warm and earnest friends who have advised us to continue it, and coupled their advice with promises of increased efforts for its support. Gratifying as these indications are that the conduct of the Journal has been satisfactory to its patrons, they do not change our conviction that it is expedient to stop it for a time. The terrible war which is now raging presses heavily upon all classes of people, and compels every one who depends upon his business for support to practice a degree of economy which in this country has been heretofore unknown.

Papers are important to the well-being of every household, but bread is indispensable, and the tax gatherer must be paid before the printer. Thousands who until now have taken several papers, will for the present feel unable to take more than one, if any. The circulation of all papers must largely decrease, while the cost of producing them has nearly doubled within the past six months. In view of these stubborn facts it seems far preferable to suspend the Stock Journal while it is entirely unembarrassed—it owes not a dollar—than to continue, with the probability of involving it in financial difficulties from which it might be unable to recover.

"We therefore for the present bid adieu to the readers of the Journal, with feelings of profound regret. We cherish the hope, however, that in more peaceful, prosperous and quiet times we may re-establish our present happy relations with them. The connection so long existing between us has to ourselves been a source of unmixed satisfaction; and rest assured, kind friends, your earnest zeal and warm sympathy

in our behalf will ever be gratefully remembered."

From the Northwestern Christian Advocate.

### Shaker-Russet Potato.

MR. EDITOR:—The following statement in relation to the above named potato, is furnished for your "House and Farm" column. The result of the crop in the case here mentioned leads me to infer that its merits have not been fully appreciated.

Last May I obtained one bushel of the Shaker-Russet potatoes, cut them up so as to leave a single eye on each piece, and planted them in rows three feet and a half apart, leaving about two and a half feet between the hills, and putting one piece in each hill. The result of the crop just harvested is fifty five bushels. The amount of land planted was twenty-seven square rods. The soil is a light sandy loam, naturally rather poor. The land was broken from a wild state, three years ago, and has been cropped two successive years with corn, without any manure. This year it had a light dressing of coarse, undecayed stable manure, and after the first hoeing of the potatoes they were treated to a handful of wood ashes to each hill. The potatoes are of large size, there being not one half bushel too small for the table in the whole lot, and I may add, that they are entirely free from rot. The quality of the potato is unsurpassed. When cooked it is dry, white and mealy, and its flavor is much more agreeable than that of the Neshannock raised side by side.

Immediately adjoining the above crop, I had twenty-five square rods planted with the Neshannock potato. The soil and treatment were precisely the same as in the above case, but the yield was only twenty-five bushels, or hardly one-half as great as that of the Shaker-Russet.

The experiment appears to be a fair test of the comparative merits of the two varieties. It seemed to me important that the farming community should be apprised of anything which should be to their advantage in relation to a crop of so much consequence as the potato and hence this simple statement is furnished you with the hope that it may elicit the statement of results from others who may have experimented in the same direction.

Other varieties of the potato which give an extraordinary yield, so far as I am aware, are of an inferior quality, of little value for the table, but the Shaker-Russet possesses the rare merit of producing most bountifully, and of being at the same time of fine texture, and unexcelled in quality for edible purposes.

HENRY S. NOYES.

Evanston, Ill., Oct. 14, 1862.

—We have since received a half bushel of the above potatoes and given them a trial on the table. The quality of the potato is good, but second to the Purple Neshannock, Carter, Pinkeye and a few others, but fully equal to the common Mercer or Neshannock. The serious injury

to nearly all varieties of the potato gives them an unfavorable comparison with the healthy growth of the Shaker-Russet.

We think the Russet as fair a table potatoe as the Garnet Chili.

The soil in which the Russets were grown is the best for the potato in a season like the past, and its preparation all that need be to ensure a good crop.

Ed.

Queen Victoria intends to carry on the model Farm at Frogmore, which was established by Prince Albert.

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THE ILLINOIS FARMER:

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AGRICULTURE AND HORTICULTURE.

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AND IS

EDITED BY M. L. DUNLAP,

(THE "RURAL" OF THE CHICAGO TRIBUNE.)

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club, twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside.

The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign, Illinois

All business letters are to be directed to the publishers Springfield.

tf BAILHACHE & BAKER.

THE ILLINOIS STATE JOURNAL  
IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

TERMS:

One copy one year.....	\$2 09
Three copies one year..	5 00
Six " " .....	7 50
Ten " " .....	12 00
Twenty " " .....	20 00

Payable always in advance. Persons sending clubs of ten and upwards shall be entitled to an extra copy.

Address BAILHACHE & BAKER,  
Springfield, Illinois.

THE

ILLINOIS FARMER

TERMS OF ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	18	\$20	\$35	\$50
Half a page or one " .....	5	12	20	30
One fourth page or half column..	3	7	12	18
One eighth or one fourth " ..	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00
Ten cents a line for less than a square each insertion.				

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

We have put the price of advertising within reach of all. It will enable those who like to freely advertise their goods, to do so at a cheap rate,

Terms, cash. Yearly advertisers will pay semi-annually, and all transient advertisements must be accompanied with the cash to insure insertion.

BAILHACHE & BAKER, Publishers,  
Springfield, Ills.

COTTON LANDS

to

LEASE!!

The undersigned has 500 acres of the best cotton lands in the State, under a good state of culture and well inclosed, which they propose to lease for a term of years from one to five.

CONDITIONS:

The renter will keep in good repair all fences, and will pay as rent one-fifth the crop if of cotton, if corn ten bushels per acre, if wheat one-third of the crop, the renter finding seed and deliver the rent in warehouse on the premises.

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Clear Creek Landing, Union Co., Ill., Oct. 1862.  
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FENCE, SHELTER, TIMBER COMBINED!

Having bought the stock from all the large owners  
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Bureau county; Jesse W. Fell, McLean county, and  
Wm. L. Smith, Jas. Thompson, Dan. M. Hull, and  
many others of Lee and Ogle counties, I am pre-  
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For a grove tree it has no equal in rapidity of  
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DURABLE LIVE FENCE, AND WON'T BREAK

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August, 1862.tf



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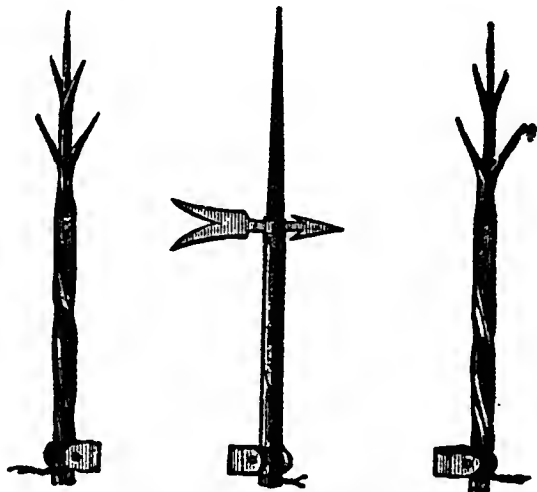
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# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., FEBRUARY, 1863.

NO. 2.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### February.

Like the columns of an army the months march on, come to the front, battle for a time and give place to others, leaving to the care of the historian their virtues and their faults. The twelve battalions of which the year is composed have their exact plans, and wheel into line at their appointed time, without regard to wind or weather: there is no worrying or waiting—no countermanding of the forward march. Though they march in grand division, yet never more than one at a time, is in the van of the fight. If December open the battle of winter with skirmishing, January bombards the field, and February carries the entrenchments, and passes

the victory over to March, the leader of the second grand division of the battalions of the year. Once a year they again come forth with all the freshness and vigor that marked their progress six thousand years ago, when the new made earth was first kissed by the laughing zephyrs, or moistened by the fleecy clouds.

The months and seasons were made for man, glowing with an evenness and beauty that challenged his admiration. All was then a continuous blooming of spring, summer and autumn, but man fell from his high estate, and lo! this earthly ball was set askew the eliptic, the seasons were set apart, and the sign of winter took eternal possession of the polar region, from which he sends out the chilly frost as wayward as the heart of man.

We must take the months as they come and go—at one time all smiles and at other most ungenial, but as we cannot mend their ways we must so study their habits that we can draw something of value from each. February is the month of active preparation for spring, the real beginning of the year's labors, the plans of which should have been laid during the less active duties of December and January.

The wood pile and coal bin should be carefully looked after, and see that ample store of fuel is provided for the next ten months at least, for you will have

no time to cut and haul wood after the busy season commences. If you use coal, put it under cover, with such a floor that you can shovel it up at the bottom, not the top of the pile, in this way the fine savings are valuable as kindling to the fire, and you will hear no complaint on account of coal dust. In our next issue we intend to discuss the fuel question more at large, and call attention to the value of cobs and coal, as being more economical in most cases than wood.

Stock of all kinds need good care this month. Shelter is the most essential. We have wintered cattle on straw alone for several winters, and had them in as good order as when fed on shock corn. We shall again revert to this point.

Seed grain should now be provided, and thoroughly cleaned. We once sowed a bushel of rye sent us from Long Island, by which part of our farm became seeded with white daises, that can not so easily be got rid of, and it was only the past season that we cleaned our lawn of several noxious weeds sown with the white clover. We once seeded ten acres with charlock, sown with oats, which required a series of hoed crops to eradicate. Be careful how you sow seeds purchased at a distance.

Now is the time to put your tools in order and to purchase new ones, or at least order them.


Overhaul your garden seeds and see that they are of the best quality, and in abundance. The garden is a most important part of the farm economy, and you had better plant five or ten acres less of corn or other field crops, than to neglect it. It will not do for you to say that you have no time to look after it, or that the prairie soil is

not adapted to the growth of vegetables; for the first is a libel on your family, and the last is a lie in fact. The garden is too often overlooked or left to the overtasked wife, or negligent children. Nothing will compensate for the want of a good garden, and hence we shall during the current year give it more than usual space. Well decomposed BARN YARD MANURE is one of the most reliable materials for general purposes, and this if at hand, can now be hauled and spread out at once. Twenty loads will be an abundance for an acre. The soil of a garden must be naturally dry, or well underdrained. We observe that some of the Chicago dealers are introducing barn dust and superphosphate of lime for garden manure. With our rich soil and abundance of manure, we think they will find a limited sale. Hot beds are made the last of this month. These are simple and cheap. Use horse stable manure, haul it to the place, let it lay in a heap for eight or ten days, and then place it in a hot bed. In making the hot bed on the prairie soil, put the manure on the surface, making the foundation nearly a foot larger on all sides than your frame. On this place the frame and fill in the earth. This is best from the old hot bed of last year that should have been piled up and well mixed during the autumn. The seed should not be sown until after three or four days. Bank up the outside with earth to keep in the heat. After the plants are strong enough to remove, say when they have four leaves, they should be pricked out into cold frames. Baist's Kitchen Garden is a valuable work on gardening, or his Almanac and Garden Manual, will answer in a small way; the former costs seventy-five cents. Breck's Book of

Flowers is one of the best for the flower garden, cost \$1, most of the bookstores have them. On the sowing of garden seeds, gardeners always sow very thickly and thin out, as they prefer this to running the risk of a poor stand. A few days since we asked a gardner who is always successful with the whole family of curculio, how he guarded against the striped bug; his answer was, plant plenty of seed, in fact more than the bugs can eat, double the number of hills in the row and quadruple the seed. Seeds should never be planted deep, but the soil must be finely comminuted and pressed or rolled after planting. Next month we shall give full directions how to grow celery, so that every farmer can have it throughout the winter. Asparagus beds should now have a top dressing, and border pinks and strawberry beds will need a slight covering of cornstalks or litter, old well rotted manure will do for the latter. We hope that our readers will not forget to plant a few hills of okra for their soups.

Many of our farmers are complaining that their potatoes are not keeping well. It would be well to overhaul them, and if disposed to rot sprinkle them freely with slacked lime. The sugar beet should be more generally grown for milch cows, as they are better than corn for this purpose. Clean ground should be selected for all vegetables, and when practicable a good dressing of manure will prove valuable.

The orchard will need attention, but do not cut a limb when it is frozen. Cut your raspberry plants back to within two feet of the ground, but only when the frost is out of them.

 Cotton in Kansas ripened perfectly last year, producing a heavy crop.

## Poetry.

### "Picciola."

It was a Sergeant old and gray,  
Well singed and bronzed from siege and pillage,  
Went trampling in an army's wake,  
Along the turnpike of the village.

For days and nights the winding host  
Had, through the little place been marching.  
And ever loved the rustics cheered  
Till ev'ry throat was hoarse and parching.

The squire and farmer, maid and dame,  
All took the sight's electric stirring,  
And hats were waved and staves were sung,  
And kerchiefs white were countless whirling.

They only saw a gallant show  
Of heroes stalwart under banners,  
And in the fierce heroic glow,  
'Twas theirs to yield but wild hozannahs.

The Sergeant heard the shrill hurrahs,  
Where he behind in step was keeping:  
But glancing down beside the road,  
He saw a little maid sit weeping.

"And how is this?" he gruffly said,  
A moment musing to regard her:—  
"Why weepest thou my little chit?"—  
And then she only cried the harder.

"And how is this, my little chit,"  
The sturdy trooper straight repeated,  
"When all the village cheers us on,  
That you in tears apart are seated?"

"We march two hundred thousand strong!  
And that's a sight my baby beauty,  
To quicken silence into song  
And glorify the soldier's duty."

"It's very grand, I know."  
The little maid gave soft replying;  
"And Father, Mother, Brother, too,  
All say 'hurrah!' while I am crying;

"But think—O Mr. Soldier, think,  
How many little sisters' brothers  
Are going all away to fight,  
And may be killed, as well as others!"

"Why bless thee, child," the Sergeant said,  
His brawny hand her curls caressing,  
'Tis left for little ones like you  
To find that War's not all a blessing."

And "Bless thee!" once again he cried;  
Then cleared his throat and looked indignant,  
And marched away with wrinkled brow,  
To stop the struggling tear benignant.

And still the ringing shouts went up  
From doorway, thatch, and field of tillage:  
The pall behind the standard seen  
By one alone, of all the village.

The oak and cedar bend and writhe,  
When roars the wind through gap and braken:  
But 'tis the tenderest reed of all  
That trembles first when Earth is shaken.

## Correspondence.

### Failure of Wilson Strawberry.

EVANSTON, ILL., Dec. 15, 1862.

MR. M. L. DUNLAP, EDITOR ILLINOIS FARMER—

Dear Sir:—Our attention has been called to an editorial in your issue for October. In noticing our place you remark:

"We believe it has been a favorite theory with Mr. Knox to plant the strawberry on dry ground, such as is suited to wheat and corn, but here on their dry sand and gravel ridge the plants after three years trial have been voted a failure, and seven acres of Wilson's Albany have, within a few weeks, been turned under. Much to our regret, Mr. Kidder was not at home, being absent in raising a company of cavalry for the war. Mr. K. has removed his strawberry plantation to the low lands bordering the swales, and they promise well. The Triumph de Gand look very vigorous and promise to show good returns next year. Thus far the strawberry crop on these grounds have proved a failure."

We certainly regret that Mr. Kidder was not at home to have shown you over the farm, and had such been the case, are free to say, your opinion as expressed in the above would not have been written.

Our strawberry crops on the sand ridge have not been a failure, in proof of which we refer to the fruit sold from our farm by Messrs. Goss & Hoag, Chicago. We have no hesitation in saying that the finest strawberries that ever went to Chicago in quantity, have been sent by us from our sand ridge.

It is quite true that we plowed up seven acres of Wilson's strawberries on our ridge, and also three acres of the same variety on our underdrained prairie. The main reason for this was the dying of the plants.

This habit of the plants of Wilson's to die is not confined to our farm—but reports have come to us the past year, from everywhere where Wilson has been largely grown, of the dying of the plants, and failure of two years old beds.

We are extremely sorry you did not glance at eight acres of Triumph de Gand and other varieties of strawberries just across the road from the seven acre patch on the same ridge. And also at the three acres of vineyard of Delaware and Concord grapes on the same soil.

We shall be pleased to show them to you or any connoisseur at any time.

In regard to the prairie soil we have only to say that some good fruit was gathered from it last season. For example, Triumph de Gand strawberries, which brought three times as much per quart as Wilson's. The only Brinckle's Orange

Raspberries that were ever sold in Chicago market. We have not abandoned strawberry culture, but are encouraged to continue our work.

Yours truly,

KIDDER & KNOX.

—We very cheerfully give the above a place, not only to correct what Messrs K. & K. think an oversight in us, but to call attention to the charge of the dying out of the Wilson's Albany strawberry, it being the first complaint that we have heard of the kind. We were fully aware of this fact in the grounds of these gentlemen, but we attributed it to the soil and aspect as well as to the white grub, which is very destructive in that part of their grounds. We observed the three acres of grapes, which promise well, and the Triumph de Gand in the low ground, but none on the sand ridge. We shall take occasion to visit these grounds next season, and until then shall probably hold our expressed opinion in regard to the dry sandy ridge for the strawberry.

Mr. Kidder the managing partner has given up his military aspirations and hereafter is to devote his energies to the fruit farm. Their stock of plants is large, from which our planters of small fruits would do well to order, to extend their plantations.

Ed.

### English Gooseberry.

JACKSONVILLE, ILL., Dec. 20th, 1862.

M. L. Dunlap. Ed. Illinois Farmer, Champaign, Ill:

SIR: In the October No. of the ILLINOIS FARMER, you enquire if any of your readers have a January number of the "Horticulturist" for 1862. I herewith send one on your terms.

I have thought you rather hasty in giving up the English Gooseberry as worthless in this country. I have grown them in the State of New York, and in this State three years, and have had them to measure from three to three and a half inches in circumference, and found no difficulty in growing them. Have tried to raise some from seed but have not succeeded. Can you give me any information in regard to raising them from seed? I have several wild seedlings grown from bushes in the barrens. I feel certain it is possible to improve the native gooseberry, or to hybridize it with the foreign. I suppose the English gooseberry has arrived at its present state of perfection by high cultivation and hybridizing. I intend to try the experiments. I think that if there are only two or three kinds of cherry trees that will grow in this State, it is time we raised a few more. Will not the growing them from seed, produce new varieties, same as the apple, grapes, or strawberry? A little



light on this subject, and a little encouragement would be acceptable.

Yours respectfully,  
ROBERT MASON.

—The English Gooseberry belongs to a maritime climate, and will only succeed in such locations. On our prairies, except on the margins of streams, is always unhealthy—will not grow thrifty, and is sooner or later overtaken with the mildew.

To grow the seedlings, wash out the seeds, sow in autumn, press the seeds into the surface and shade with moss, straw or fine brush.

The native seedlings have an intense sour that is difficult to overcome with a reasonable amount of sugar. The Houghton and American Red are valuable varieties. Doubtless valuable varieties may be obtained by a judicious crop with the grale sorts.

We have several varieties of Kentish Cherries, all more or less valuable; but the May, (Kentish of Downing), is by far the most valuable. Those can be had from twenty-five to fifty cents each, depending on the size and age of the trees. We have them grafted two feet high for gardens; these will produce fruit the year after planting. We can see no object in enlarging the number of varieties of this class of cherries. Dr. Warder, in his forthcoming Fruit Book, will arrange our western nomenclature.

Ed.

### Okra.

DECATUR ILLS., DEC. 2d, 1863.

*Editor Illinois Farmer, Champaign Illinois :*

Noticing in the November number of the FARMER the "Gumbo Dinner," I was considerably amused at the reception of an old (vegetable) horticulturist of this State, and thought I would drop you a line giving you a few hints in regard to this useful vegetable. I have grown it in my garden for a number of years. It is raised extensively in the south. In my own native State, (Miss.) no vegetable garden is ever without it. It resembles cotton very closely, so much so as to be often mistaken for it. It is also subject to the same laws of climate, being very tender and easily killed by frost, or wilted by the hot sun when young and tender. It therefore, is necessary in order to grow a good crop to plant early in protected situations. It should be planted in hills, four feet apart, four seeds in a hill; these thinned out at each hoeing, or when they begin to crowd, so as to leave only one or two stalks in a hill. Care must be taken not to bruse the plant, as it is very sensitive.

### TO USE.

The pods must be gathered when tender; try them as you would squashes. They must be used the same day they are plucked. Slice up in thin slices into the soup; it thickens it as well as imparts a delicious flavor, and can be used with any kind of soup. It is also cooked the same as asparagus. The seed, when ripe, makes an excellent substitute for coffee, so good that the best judges have been deceived. The difference, however, is readily perceived where cream or milk is not used.

Why cannot some of our farmers experiment with it as to its productiveness? Sorghum and imphee are furnishing us with molasses, why not okra give us our coffee?

One word more. Okra is not called "gumbo" down south. Gumbo is a peculiar dish prepared by the French cooks, chickens and okra being the principal ingredients. But few cooks know how to prepare a good dish of gumbo. Any good housewife can improve her soups by slicing one or two tender pods of okra into it.

Respectfully yours,  
W. J. USREY.

—Many thanks for the above. Now that the value of this plant is better known, it can be made useful instead of being planted as a curiosity. Seed of it can be had at Hovey's Seed Store, in Chicago.

En.

### Sap of the Wild Strawberry—Effects of Drainage.

*Editor Illinois Farmer, Champaign Illinois :*

FLUSHING, N. Y., Nov. 27, 1863.

DEAR SIR:—At the meeting of the North American Pomological Society at Boston, it was contended by many that with the strawberry, pistillate plants are not found in nature, but are the result of *usus nature* or montrosities.

Now my dear sir, if you will step forth on your boundless prairies in the season of blossom, you will find myriads of pistillate plants. I notice by several articles in the FARMER that *selections of the different classes of fruits*, comprising such as are most hardy and productive, excellent in quality and suited to your very trying winter climate, are anxiously desired.

I will make out such a general list, and shall do so guardedly. Permit me to say that it is not the severe cold of your climate that has been so fatal to your trees—it is the freezing of the saturated earth, which no tree can withstand, and it is this which in the depressed prairies, does now and will forever prevent the formation of permanent and

successful vineyards. Where then, shall we look for an adequate remedy? By no other means can a remedy be obtained, save by a perfect sub-drainage. Surface drainage will, however, render much benefit, and perhaps from considerations of expense, this is all that can be done at present. But you must look to a perfect drainage in perfecting, as soon as your people can give their means to such an all prevailing purpose.

Yours truly,  
WM. R. PRINCE.

—Mr. Prince is correct as regards the pistillate character of our wild strawberries, though the staminate or the hermaphrodite plants are the most abundant.

Doubtless, the soil saturated with water has a very decided influence in the destruction of trees by frost, but it has been our observation that severe cold has had much to do with it, more especially when the tree is at the same time exposed to a severe current of air, and we have often observed that trees under shelter are much less liable to damage by sudden changes. In the more northern States where the degree of cold is much greater in winter than here, the earth is covered with snow, which to a great extent protects the roots, besides the changes are not as sudden as with us; nor do they have such fierce winds, but on the contrary, during the very cold weather there is a remarkable absence of high winds. There is no question that thorough draining will have a highly beneficial effect on the durability of our trees, but it is not all that it will need. They must be planted on the light colored soils, and have shelter from the severe winds.

Ed.

Select Fruits.

Editor Illinois Farmer, Champaign, Illinois:

I send you a selection of fruits for an orchard of one thousand trees each:

APPLES.

Red June.....	50
Red Astrochan.....	50
Early Harvest.....	50
Early Pennock.....	50
Keswick's Codlin.....	50
Buckingham.....	100
Maiden's Blush.....	25
Yellow Bellflower.....	50
Twenty Anna.....	25
American Golden Russet.....	25
Rowles Janett.....	50
Winter Pearmain.....	100
Winesop.....	25
Smith's Cedar.....	25
Tallman Sweet.....	25
Rome Beauty.....	100
Little Romanite.....	100

Limber Twig.....	25
Pryor's Red.....	25
New York Pippin.....	25
Willow Twig.....	25

Total, 1,000

The above will give market apples the entire year; the refuse will make cider. All of the above varieties have fruited heavy crops in this section, except the New York Pippin.

Eighteen miles east of Dongola, in one settlement, two thousand bushels of this sort has been grown.

PEARS.

Bartlett, (stand.).....	300
L. B. de Jersey, (dwarf).....	200
Duchess de Angoulern.....	200
Belle Lucrative.....	100

Total, 1,000

The above varieties have done well here, and given good satisfaction. Others will doubtless prove as good, but of this we must have further experience before we can safely place them on the list.

PEACHES.

Coles Early Red.....	100
Troth's Early.....	100
Large Early York.....	100
Coolage's Favorite.....	100
Borgen's Yellow.....	100
Crawford's Yellow.....	100
Old Mixon Free.....	100
Crawford's Late.....	100
Heath Cling.....	100
Smack Free.....	100

Total, 1,000

The above are all good market sorts, and largely grown at this point, and shipped during July, August and September.

Yours truly,  
EGYPT.

South Pass, Union Co., Ill., Jan. 1863.

—Our correspondent is a pretty close observer, and our readers can therefore place considerable reliance on him. Though we must all bear in mind that we have had but a few years of practical experience in fruit growing at South Pass, (Cobden Station), and of course but a limited number of choice varieties have been sufficiently tested to make a very full list, but we take it that "Egypt" draws his inspiration from the old settlers in regard to the varieties of apples, though not of the pears and peaches, for all of that class of people have, at all times, been innocent of the finer varieties of these fruits, with one or two honorable exceptions. We think he has overestimated the Bartlett and Duchess. The peaches we know are all good.

Ed.

### Culture of Cotton.

By way of experiment, we planted three-fourths of an acre to cotton, using the green seed or upland variety. The land was broken up in the summer of 1860, and was the raw, unpastured prairie. In the fall, it was sown to wheat, the stubble plowed early in May following, and on the 13th, worked off with a common corn planter, the rows then put nine inches apart and two bushels of old seed planted by hand in these drills. It was then harrowed smooth and rolled with an iron roller. None of the seed was covered over half an inch, and much of it merely pressed into the soil. But little of the seed was good—it having been heated. That pressed into the earth without any covering comes up at the same time of that covered from a quarter to half an inch, while some planted on to two inches, by way of trial, did not come out at all, thus showing that the seed must be slightly covered. The rows were extended with corn, and the culture was the same as that received by the corn crops, with a two-horse cultivator. After the corn was laid by the few weeds remaining in the cotton rows, we cut out, and where the stem was too thick, the plants were thinned, to say six inches, but four plants had to be removed, as the plants were more often three to four feet apart.

The season has proved a wet one, and the plants made a most vigorous growth, and set full of buds, but none of them were matured so as to open until after the severe frost about the 20th of October. The balls soon begin to open and are continuing to mature; but for the past two weeks the weather has been wet and cold, and it has made slow progress in ripening, but a few weeks of dry weather will mature it.

The "contrabands" in my employ, who are cotton hands, say that nearly all of the crop will mature, and they estimate the yield of clean cotton at a hundred pounds. The stand is about half a one or equal to three-eighths of an acre, and had it been planted at the proper time, say two weeks earlier, the yield would have been much larger, as the early part of the season was more favorable to growth than the latter. The heavy rains of September and October appeared to give the crops an increased growth of foliage and new buds without maturing those nearly grown. The same effect was produced on the sweet potatoe, they yielding an abundance of vine, but added little to the growth of the tuber.

#### THE LOCATION.

This farm is located on sec. 36, town 19, range

8, east of 3d principal meridian, about 40° 10 min. north, and may be considered the northern limit of the successful culture of cotton. Notwithstanding the late planting and the badness of the season, the crop has matured sufficient to pay the cost of culture. So well are we satisfied that cotton can be cultivated as a paying crop, that we intend to plant five acres next season, the land for which is now plowed.

#### FALLACY EXPLODED.

The plant is not easily killed by frost, being fully as hardy, if not more so than corn. The autumn winds will not blow away the ripened cotton if picked in a reasonable time after opening. It therefore needs no protection or shelter by timber belts for this purpose, though the crops will be benefitted by shelter in the spring like any other crop, from the cold winds, but not more so than corn. It needs no scraping and hand weeding as at the south, requiring the same culture as that of corn, in what is called the *flat system*. The plants should be thinned to six inches in the drills. The autumn frosts do not destroy all that is not open at the time, as it dries out and matures for several months after the growth is arrested. All half-grown balls will produce cotton. The culture of cotton is, therefore, simple and easy, requiring good clean, well drained land, thorough preparation, early planting and clean cotton. We do not apprehend the risk of an average crop, if, say two to three hundred pounds a year, is more than of other crops. Even corn, at times, turns out but poorly, and this from the causes noted, is not, this year, over half a crop in this section.

#### ITS NORTHERN LIMIT.

We think this the extreme northern limit of the field culture of this crop, though west of this on the Mississippi river, it will extend, probably a half a degree further north—caused by the lower elevation, and being more in the direct pathway of the summer trade winds that are pressed up from the Gulf.

South of Pana and Neoga, the crops should be among the most profitable; and with early planting and good culture, can scarcely fail in any season. There the soil is a greyish mold or chalky formation—very rich, but requiring a somewhat different mode of culture than with us. Here the soil is a dark, pliable clay loam, exceedingly rich, giving to the plant an almost too vigorous a growth; but should topping correct this excellence of growth, we shall be able

to produce a crop in favorable season, equal to the bottom lands of the Mississippi.

#### THE EXTENT OF COTTON.

I know of no other attempt in this county of the field culture of cotton; in fact no attempt could be made, as the government agent entirely disappointed us in regard to seed. The seed used by us was from a lot sent to St. Louis two years since, to work into oil, and had been badly heat. On a trial of the seed in the green-house, but a small per cent. would grow; hence the bad stand. Besides this, the plants were feeble from the low vitality of the seed. At Pana, seed for some twenty-one acres, was obtained and planted at a late day in May, but of the crop we know nothing. A large number of small patches from one to five acres, were planted in Union and Alexander counties, from seed obtained at the Gin at Jonesboro. From this want of seeds, we can date the course of the limited acres planted. Had the government entrusted the collection of the seed to the officers of the Illinois Central Railroad as proposed, instead of some incompetent person as was done, thousands of acres would have been planted. Not less than ten thousand bushels of seed should be sent into this State—early in the winter—that farmers may prepare to plant it at the earliest period in the spring. In the south part of the State that will be the last of March, and here the last of April.

#### The Patent Cow Milker.

There was a trial of this machine at Colligan Lodge, Ireland, on the 10th of October, at which a large company were present by invitation. The Irish Farmer's Gazette says:—

The animals for the first time milked with the machine stood perfectly quiet, and were milked without any apparent inconvenience or distress to them, and in a manner which certainly merits a favorable opinion as to the principle of the machine.

The machine is very simple in its construction and can be conveniently arranged for use. It milks the four teats of the cow at the same time, and requires no adjusting in changing from one cow to another, fitting small and large teats, or those standing at different distances apart. The machine is attached to a stout tin pail holding about twelve quarts, and weighs altogether six pounds. The operator sits on a one-legged stool with the view of expediting him or her in the event of the animal getting cross, or attempting to kick the pail, when the back is instantly turned, and the danger of spilling the milk is avoided. The pail is placed between the knees;

the operator inserts the four teats in the teat cups, which are composed of India rubber, beautiful and soft, and he works two levers backward and forward like a pair of hand bellows; the milk then flows into the pail. The milk is drawn from the teats precisely like the suckling of a young calf, as near as possibly could be imitated. The calf draws a quantity of milk from the cow, and then stops to swallow; so with the machine. As the handles are pressed together, the milk flows into a pump: as they return it passes out through a valve into the pail. The pump is of very simple construction, easily taken apart and put together, which is most essential in keeping it clean. It is washed by pumping water through it; first cold to rinse off the milk and after hot water for scalding. Then it is taken apart, wiped thoroughly, and set to dry, which is usually done with the ordinary milk utensils. The visitors said from what they had seen, they were of opinion that cows would easily become accustomed to it, as well as if milked by the hand; and further stated that the spring of the year, or when the calf is taken away, would be the proper time to introduce the machine into dairies, for it is but justice to add that none of the cows were clean milked; but it is supposed this will not be the case when the machine is tried on new milch cows and heifers.

*Operation.*—At the same time the company's agent applied the machine to the milking of the first cow; she yielded her milk freely, and in applying it to the second she milked not so freely as the former, and the remaining number tested milked very fairly. On the evening of the first day it milked much better, and one cow in particular was milked in one minute and forty seconds.

Your correspondent was informed by several intelligent farmers in the locality, having a large number of cows, and having had great experience in dairy experience, that cows, at this season of the year, do not give their milk so free as during the summer. But now, from the late period of the year, it could not be expected that the machine could possibly finish without applying the hand of the milk-maid to complete the work. From what has been said at the testing of the machine by parties of long practical experience in milking, if the cows were regularly milked through the year with it, they would yield their milk more freely, and could be completely finished without applying the hand. The principle is good, and when fairly and honestly tested at the proper season of the year, there is no doubt but it will succeed in the end.

The mowing machine, the reaping machine, the threshing machine, and all other descriptions of machinery, when originally introduced, the inventors had many difficulties to contend with, but time and experience convinced the public of their utility and importance in the respective uses for which each was designed. On these grounds it is but fair and just to give this novel machine a trial at the proper season of the year, as stated, to ascertain its milking power, and if found perfect in its working, it will find its way into all our Irish dairies.

We are assured by one who has given these patent milkers a pretty thorough trial, that the difficulty lies in the destroying the muscles of the udder, or so weakens them that the cow can not hold her milk, but will leak so badly that she is practically ruined. Whether that defect can be remedied or not, we are not prepared to say. Don't all rush at once for the patent milker.—Ed.

### The Illinois Central and the Farmers.

During the past two years the Illinois Central Railroad Company has been in the practice of receiving of the purchasers of its lands, corn and wheat, more particularly the former, which was received in the car and stored in cribs at Burnside Station, a few miles south of the city.

The experiment of playing the grain dealer, though beneficial to the farmer, did not result so favorably to the company as anticipated, and it has been abandoned, or at least modified to accord with the more regular laws of trade. When the Company first undertook the purchase and storing of corn, this staple ruled far below the cost of its production, and consequently the farmer was unable to meet his payments, and, even at the increased price paid by the Company, but a small amount could be spared to apply on the payment of their lands. The whole amount received for the year ending the first of August, was less than a million of bushels, a small percentage of the whole crop. The reason of this low price was the result of two or three causes. First, the immense crops of 1860-'61. Second, the discovery of the oil wells which supplied a cheaper, or at least a more popular burning fluid than that made from the distilled products of corn. Third, the closing of the Mississippi River and the consequent rise in freights to the seaboard. These combined lessened the price of corn at the place of growth. If the Company had put up cribs in which they could have held the corn for a better price it is possible that a saving might have been effected. But it is neither desirable or politic to hold large crops of grain at the west, for in that case it might aggravate the evil that it was intended to cure.

The company have now adopted a new system, and one that promises the best results to both interests, at the same time one that will not interfere with the laws of trade or accumulate large stocks as might have been done under the old system. They now propose to receive of the purchasers of their lands every species of marketable farm products, whether of grain, hay in bales, or live stock. This will be sent to the proper market, and placed in the hands of reliable commission houses who do an exclusive commission business, and sold at once. A drawback of thirty per cent on the amount of freight will be allowed.

After the produce or stock is shipped at the station, the Company assumes all responsibility in regard to it, and guarantee the highest market price and prompt return. In most cases

these will be of more real value to the farmer than the drawback on freights. It will at all times insure the highest price at the least possible cost.

In some cases shipping agents might be employed at the station. But this will seldom be found to pay. The stock grower usually sends his stock forward, often attending it himself; but it is seldom that he makes a sale—employing a broker for that purpose—his personal attention being more essential to the care than the sale of stock. But in the case of grain, no attendance is required, and it can be forwarded without him; and when the Company assume the responsibility of transit and of sales, he will be relieved of all anxiety in regard to the matter. The reduction on freight is an important item in the payment of lands, amounting to from ten to twenty per cent. on most products. The Company do not preclude the shipper from selecting his own commission merchant, but in that case they assume no responsibility and only give the drawback on the freights when the shipments are paid over to them.

This plan must tend to the relief of the old contracts for land, and will facilitate payments on the new purchases. The price of lands is not to be enhanced in consequence, nor the time of payment shortened, but will facilitate the payments by enabling the farmer at any time, and in such quantities as may suit; to turn over his surplus to the Company without the risk of loss by incompetent or untrustworthy agents.

The reduction of freight on corn will be an average of at least three cents per bushel; add to this three to four cents on the enhanced price, and the percentage is a large one, at present fully equal to twenty-five per cent on its value at the point of shipment.

On the opening of the Mississippi River, an immense amount of hay and potatoes must forward to supply the demand. The freight on the last named from the place of growth to Cairo, is about twenty cents a bushel, the drawback of which would be some seven and a half cents a bushel. This, to the purchasers of railroad lands, is an important item and will give them largely the advantage, not only at the south but in this market, so of hay and all other heavy farm products.

The result of this arrangement must tend, not only to a prompt payment of the old contracts, but must result in a new demand for the lands now unsold.

● To the fruit grower this arrangement will be highly acceptable, and tend to cheapen his product in market, and thus create a more steady demand at fixed rates, that shall leave him a reasonable profit.

The freight on a bushel of apples from the south part of the State is about thirty cents by the car load, the drawback on which would be about ten cents. This of itself would soon pay for the largest orchard in Egypt, and at all times bring the southern orchardist in direct competition with more favored localities, even for the cheap autumn apples. If this reduction should be made to all growers, it would result in a gen-



eral revolution of all our freight tariffs, but these benefits are exclusively confined to those who purchase lands, and cease the instant the land is paid for.

The immunity from taxes while the lands are being paid for, together with the advantages above set forth, cannot fail to make the country along the whole line of the Illinois Central Railway one of great activity during the next ten years.

—In a previous article, we have discussed the bad policy of selling at the depots instead of shipping direct to market, thus dispensing with a useless class of middle men who eat out the farmers profit.

If the company will steadily pursue the system now inaugurated, the time will not be distant when it will cease to be a land holder, except for its own use. If they would further reduce the freight on the great staple corn, we have no doubt they would be the gainers thereby.

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## The Dairy.

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### Lecture on Butter Making.

The following extracts are from a lecture of Mr. James Dumbrell, one of the most extensive dairy farmers of England, before the London Farmer's Club :

"Our next consideration will be in the in-door-department; and in the first place, it is strongly to be recommended, where it is practicable, that the dairy be a distinct department away from the residence of the proprietor. A dairy-maid's duties are too onerous to allow of any distraction, and we all know that domestic events will happen at times which require the whole strength of the company. The marriage of a daughter or the birth of a son might be tolerated; but there are the more frequent occurring dinner parties, great washes, brewing days, etc., when even the important duties of a dairy become secondary. Therefore, it is desirable to place the dairy under the care of responsible servants who have no other duties. A man and his wife and a boy are sufficient staff to manage a dairy of twenty-five cows. The dairy-room should be used for nothing but its legitimate purpose—the reception of milk. The floor should be a few feet under ground, dry and airy, and shaded from the sun. Benches should be of open wood-work. It should be heated in winter with hot water pipes, so as to maintain a temperature of about fifty-six degrees. This is the easiest mode of applying artificial heat, and as efficacious as any. From experiments which I have made upon the application of heat to milk, I have found that a sustained temperature of fifty-six degrees raises as much of the cream as can be raised, and that although by increasing the temperature by direct application of heat, either by applying boiling water or by placing the pans of milk on a hot plate, the cream may be drier and appear thicker, yet there is in reality no increase of but-

ter. A dry, warm temperature, and a current of air through the room, are the best conditions for raising cream; a heavy, damp atmosphere the worst. The milk pans should be of tin, oblong, with rounded corners. With round pans too much bench room is wasted. With earthenware pans, the lactic acid will, after a time, destroy the glazing; and glass pans chip too easily. A great many new inventions in the way of churns, have enjoyed a brief existence, but, the old-fashioned box and barrel churns still hold their own against all comers.

Now comes the great secret of successful butter-making, namely: churning frequently. Butter, to be perfect, must be churned every day, or at any rate, every other day. The cream must *not* be in a state of decomposition, or you cannot possibly have good butter. Great attention must be paid to this point, and the most scrupulous cleanliness is required in every part of the management; and then, no matter upon what the cows are fed, whether white turnips or swedes, or whatever it may be, there will be no disagreeable taste found. Another thing that conduces very much to the production of a good quality of butter, is a succession of fresh calving cows. In a large dairy care should be taken to have, as nearly as possible, an equal number of cows calve every month throughout the year. Cows should be dry for six weeks before calving, and during that time should be removed to more roomy stalls, with a large loose box to calve in. At this point the treatment must depend upon circumstances; but in a general way the less done for the animal the better, and the more she is left to nature the better. Another point remains to be considered—the application of skim milk. This may be either used for cheese-making, or for rearing and fattening pigs. The quality of cheese made from skim milk is of course very inferior, particularly from Alderney cows; for although their produce is richer in cream than in any other breed, the milk, after the separation of the cream, is the poorest. The fattening of pigs to a small weight is far more profitable, and forms rather an important item in "dairy management." They will require very little corn, as nothing fattens young pigs faster than milk.

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NEBRASKA SALT.—A Mr. Phillips, of Nebraska City, has left with us a specimen of the salt gathered on lands of the United States some forty-five miles west of Nebraska City. Several basins exist in close proximity to each other. The ground is swampy from the number of fresh and salt water springs which appear on the surface. As the water evaporates, it leaves a crust of salt which is raked or scraped up. Previous to being used the salt is thrown into vessels of water, when the particles of earth accidentally taken up settle to the bottom and the brine is drained off. Owing to the fact that the government still retains possession of the lands under the general reservation, no companies have as yet been able to establish works.—*Des Moines Times*.

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It is estimated that 100,000 pounds of tobacco were raised in Schuyler county during the past season.

## Illinois Central R. R. Land and Commission Agency.

The Illinois Central R. R. Land Department have made a new arrangement and one that cannot fail to give general satisfaction. They now receive from farmers all kinds of produce, stock, etc., in the payment of lands on both new and old contracts. These articles are sold to the best advantage, and a reduction of thirty per cent. is made on the freight.

This is much better than the old plan of purchasing corn and cribbing it, entailing on the Company a heavy tax without any corresponding benefit to the farmer. Should the price of grain rule lower it is probable that they may make a further reduction on the freight. With the opening of the Mississippi, a large amount of grain will seek an outlet over the I. C. R. R. to Cairo, and a general agency at Cairo and New Orleans as well as at Chicago will be needed. Farmers will find two advantages in shipping to the Company's Agents; first, in realizing the full market price for their produce, and in the next the reduction of freight.

We have shown in another article the former and will now revert to the latter. The freight on wheat by the car load from Chicago and all points as far south as Champaign is eighteen cents per bushel to Cairo, one third of this is six cents. On corn seventeen cents, or five cents saved. Taking the price of corn at twenty-five cents at Champaign, and we have a saving of twenty per cent, and when sent to Chicago of about eleven per cent. and on other products a much larger sum; on potatoes of about eighteen per cent. This reduction will stimulate the growth of more heavy products. The potato crop from Mattoon north is always a good one, and less liable to rot than at the north, but the heavy freight against it has prevented shipment in that direction. They are a profitable crop delivered on the cars at twenty cents, take the reduction of freight and the cost additional to get them in Chicago and selling will be nine and a half cents a bushel, and at Cairo at fifteen cents. This will give to points south of Chicago almost the monopoly of the potato crop.

### THE AGENCY.

J. M. Redmond acting commissioner of the Land Department will be the general agent of the Company, but this will not preclude farmers from shipping to other parties to sell, when they prefer it, and in that case the same deduction of freight will be made. In the selection of Mr.

Redmond we have an active and efficient business man. His long acquaintance with the Land Department will make him useful, being familiar with all its parts, first as the successor of the gallant Gen. Burnside in the Treasurer's office, and later as successor of Col. Foster in the Land Department. A gentleman of tried integrity and so extensively known that the interest of the farmer will be safe in his hands. We congratulate the officers and purchasers of lands of the Company in the new arrangements, and have no doubt that it will lead to great results, and prove a benefit to both. To the one in cheapening of freights and the enhanced price of farm products, and to the other a saving of expense in cribs and loss in handling. When many of those lands were sold the price of farm products were much larger than now, leaving a wide margin of profits, and the ability to pay for land at good prices. Now when the price is down to the low cost of production, it is but right that some relief be adopted. We shall now hope to see not only a paying up of the old contracts, but a large sale of new farms, along the line of this great highway. Farmers can now pay for their farms in produce, and will be exempt from taxes until the land is paid for. These two facts will operate to add to our farming population to say nothing of the profits on cotton, tobacco and sorghum.

It is proper to state that Mr. Redmond will retire from the Land Department, and devote his time to the Agency. He will be found on the second floor of the building of Tuttle, Hibbard & Co., north east corner of Lake and State sts. Chicago.

### To Cure Hams---Loss in Weight.

John C. Bishop, Fond du Lac, Wis., writes to the *American Agriculturist*: "I have never failed of having most excellent hams by using the following recipe—the shoulders are equally good, only fatter: Rub the hams thoroughly around the bone with salt, using the best quality. To four pails water add one quart molasses, six quarts salt, and one tablespoonful of saltpetre: they should remain in this pickle covered, five weeks. Cobs are preferable to any other article to smoke with: sack and whitewash and you will have first quality hams the year round. In packing my pork last Fall, it occurred to me to ascertain how much is lost in weight by smoking hams. I cut out a ham which weighed 24½ lbs. After taking from the pickle, in which it had remained some five weeks, it weighed 25½ lbs. One month after smoking it weighed 22½ lbs. having lost over three pounds. A barrel of side pork weighing 200 lbs. that I packed freed from bone and most of the lean meat, on being re-weighed had gained eight lbs.

## New Staple Crops.

### SUGAR, TOBACCO AND COTTON IN ILLINOIS.

(Correspondence of the N. Y. Tribune.)

DONGOLA, Union Co., Ill., Oct., 29, 1862.

I have visited many sections in Illinois south of 40 deg. and some north of this latitude, and will give the result of the experiments made this year in the culture of our new staples.

#### SUGAR-CANE.

The amount of sugar-cane planted in this State must exceed my estimate of 50,000 acres last spring—it must exceed 100,000 acres. I doubt not but more molasses will be produced than we can consume. A few years ago when the farmers first made molasses, it was often poor—some could not use it, many were discouraged. Since then, with better methods and a diffusion of the experience of those who made good molasses, the culture has become as fixed as corn. Large mills, run by steam for grinding the cane for townships, are not as profitable for the farmer as his own small machines in which his neighbors unite with him. Refiners will do well.

#### TOBACCO.

I am surprised at the large breadth of tobacco planted. There cannot be less than 10,000 acres in addition to the usual crop, which is as much more, for some counties on the Ohio River have raised it many years. It will average a full crop—perhaps more. On good ground and with careful culture, there will be often 2,000 pounds cured to the acre. So I am told. There is a good deal of money in this. I will relate an anecdote: A friend of mine has owed \$400 several years. He has had a greater sum owing to him. He could neither collect nor pay. For four years he has tried to get the money by raising wheat. The seasons were poor. Last year he was determined to succeed. He put in forty acres on his own farm. The land was prime, and I never saw ground in better order. On a rented farm he had eighteen acres more. The Hessian fly came. From the forty acres he brought to the barn one wagon load in the straw; from the eighteen acres, his share, in two common sacks. Last spring I induced him to raise cotton and tobacco. He has an acre of cotton, which is fine, and two acres of tobacco. He will pay off the long standing debt and have money to spare. This is in the latitude of thirty-seven degrees thirty minutes.

I will speak of a crop in a higher latitude. I visited the nursery grounds of F. K. Phoenix at Bloomington, McLean county, in 40 deg. 30 min. Here I saw three acres of as good tobacco as one will find anywhere. It is true that, for want of proper knowledge of its management, he will fail of the largest returns, but, as it is, this little spot will be worth fifty acres of corn. This is on prairie soil; there are millions of acres in the State which will produce tobacco just as well. The country owes much to Mr. Phoenix for this

experiment. Look on the map and see how much of Northern States lies south of this three acres of tobacco. It is all the State of Missouri, three-fourths of Illinois, three-fourths of Indiana, more than half of Ohio, half of Pennsylvania, and more than half of New Jersey. To show what in time may be expected from our new staples here in the West, we have but to mention how largely, for instance, the nursery business is carried on. Mr. Phoenix has 100 acres of apple trees from one to three years old, all in the most thrifty condition, I doubt whether there is another collection in the world so extensive; and he is enlarging his grounds every year, because people find western grown trees better than eastern ones. To do the work in this nursery from twenty to 100 hands are required nine months in the year; and for the packages for the shipment of trees and flowers 100,000 feet of lumber are consumed. I will add a little anecdote which will please boys. Twenty-eight years ago Mr. Phoenix was a poor boy, in Wyoming county, N. Y., and in order that he might become a subscriber to Mr. Greeley's *New-Yorker*, he hired as the carrier of the county newspaper.

The greatest obstacle to raising tobacco on the prairies is the scarcity of lumber, for a good sized house is required to cure the tobacco in. It is astonishing how few barns there are. But when it is seen how enormously profitable this crop is, the want will be supplied, and I take this occasion to prophesy, that in a few years Illinois will excel Virginia. Were our country at peace, and no great debt over us, I would be willing to say more against this culture than I am now saying for it.

#### COTTON.

My account of cotton may not be so favorable as some will expect, it is more so than I had expected it would be. Last spring a difficulty existed which it was impossible to overcome. This was a want of seed, and it led to some failures, for when the seed did not come up—corn will not always grow—no seed could be had to replant.

In that region of Illinois lying south of thirty-eight degrees, and comprising fourteen counties, cotton was planted quite extensively last spring, because many always had been in the habit of raising it, still not one farmer in ten planted, and now nine out of ten of these are sorry that they did not—but they could not, for there was no seed. The cotton bolls are now opening very fast, and on an average of fifty-six pounds of clean cotton have been picked from an acre. There will be three more pickings of fifty pounds each. Every seed will be saved. So much for a region long known as good for cotton.

I come now to speak of an experiment made by M. L. Dunlap, Esq., of Champaign, Champaign county, in latitude forty degrees 14 minutes. Mr. Dunlap also is a nurseryman, and has three-fourths of an acre of cotton. He says that he will have at least one picking, that the yield will be fully 200 pounds of clean cotton to the acre, that this is as much as on an average can be raised in the State of Mississippi, and the reason why as

much can be raised in this latitude from one picking, as in Mississippi from four pickings, is because the soil is stronger and has greater vitality, giving, as a consequence, a greater number of larger bolls. Let one look on the map again, and see how large a part of the North lies south of Mr. Dunlap's cotton, which, according to present prices, is worth more than a hundred dollars to the acre. I have now an encouraging, even a romantic account.

A certain gentleman, who has lived eighteen years in a Southern State, who still owns a plantation there, stocked with negroes, and has raised cotton there on a large scale, came to Illinois a few years ago, and purchased of the Illinois railroad company, on one of the lines of their road, 18,000 acres of choice land. On these lands he settled about eighty families, who seemed devoted to him, for as I rode with him in a buggy, he was stopped by one and another. One wanted shoes—one smith-work done—one was building, and he wanted advice as to how the door and windows should be placed, and the like. I noticed a very neat church which he had built for them, and he told me that for two years the crops failed, and he had to support these people. His main object in coming hither was, so far as I could see, to prove that cotton can be raised at a profit in Illinois. For he makes it a condition with his tenants that each one shall raise all the cotton he can cultivate, taking into account the number of children, whose services will turn to good account in picking. I perceive that the reader will wonder why I do not mention the gentleman's residence and name. I have this reason: He does not wish me to because his family remains on his Southern plantation, and he fears if the efforts he is making to raise cotton were known to such rebels as formerly knew him, that his property may be destroyed and his family murdered. Many distinguished persons will know of whom I am speaking, for he is an intimate friend of Gen. McClellan, and when Prince Napoleon went down the Illinois Central in his own car, he sent word to have this gentleman meet him at a certain town, which he did, and they rode together over much of the road; this was that the prince might get correct information of the affairs of this country, South as well as North; and it was from such sources that he derived such favorable views of the North which he so freely expressed in France.

The latitude in which this gentleman's lands lie is 39 deg. 30 min. Last year he raised enough cotton to encourage him greatly, and this last spring he prepared several hundred acres of ground. But the great difficulty arose in the want of seed. He could get only about sixty bushels, which he sowed thinly so as to have it go far, but a good part of it was eaten up almost as soon as planted by the white grub. He got a little more seed and replanted it; the rest of the ground he put in corn. This season, as every one on the prairie knows, was unusually wet, and he could not work the cotton in time. I have now to report the result. He has about forty acres of cotton, much of it planted in the first part of May, which, though the bolls are not yet

opened, are so matured that nothing can prevent his having three-fourths of a crop—that is 150 pounds to the acre. He showed me one patch which the grub did not touch; the stalks were ripe, the bolls were opening, much of it had been picked. This was the short staple of Tennessee. By the side of this he showed me some rows from Louisiana seed; that plant as high as my head, as green as grass in June, and much of it blossoming. He stated that the bolls which I saw on ripened cotton were larger than they were on his plantation at the South, and that there were as many or more on a stalk, or "tree," as he expressed it; and the reason he gave for this was, that the soil had superior vitality, and also that though it is rich its ripening qualities are equal to its vegetative qualities, or it produces seed as well as stalk. He says one should plant as early in April as possible; that wet weather does not make prairie ground hard, and that a month gained in spring is worth two months, even without frost, in the fall.

That he might make the experiment thorough, he planted in various localities, that is, on low, moist ground, on high ground, on sandy ground, on ground sheltered by timber and on open, fair prairie ground. He prefers the last; it was on the last, he showed me the richest cotton. I have this to say on my own account: This ripest piece was more forward than any I have seen in the timbered country 250 miles South.

Last year he sent a specimen of the cotton he raised, to England, and it was examined and analyzed at Manchester. The report published in the journal of the Illinois Agricultural Society, is to the effect, that the specimen was better than Orleans cotton and twenty per cent. stronger, but not quite so good as Sea Island cotton. The reason he gives for this superiority is, that in the South, particularly on low grounds, the dews are very heavy—the cotton is drenched with it by night, by day the intense heat of the sun scalds and steams it, and, as a consequence, weakens the fibre. On the prairie there is much less dew, a fresh wind always blows, and the sun shines with milder rays.

Next year he will plant all the seed he can get providing it will not be more than will be required for 2,000 acres.

The cost of raising an acre of cotton is very little more than is required for an acre of corn. It is about the same as an acre of broom corn. An acre of tobacco can be raised ready to hang up, for twenty dollars, and it is worth ten or fifteen dollars more to cure it.

—Dr. Meeker, the writer of the above, is a careful observer, and his estimates are worthy of attention, a practical farmer and fruit grower himself, he can more fully appreciate the difficulties in the way of progress, and at once grasp any advantage that might be offered.

It has generally been supposed that all the unopened bolls of cotton at the time frost killed the plants, would be lost, but this is not the case in this part of the State. In our grounds not a



boll was opened at that period, and yet we now have a fine show of the staple, pronounced by good judges equal to the Tennessee. Nor will it all be ready to pick for some weeks yet. We again repeat that, from our experience thus far we should prefer to risk cotton than wheat, and intend to put in several acres next season.

We are no advocate of the use of tobacco, but so long as it is a marketable commodity, our farmers might as well make a fortune out of it as others. People will continue to smoke chew and snuff the vile stuff, and so long as they pay for it let them have it.

The Sorghum crop of the State will not only save a larger amount of money from going out of the state, but it will give thousands of families an abundance of sweetening that never before enjoyed that luxury, and in these families will to a great extent counteract the bad effect of too much grease with which their food has been saturated.

We fully agree with Dr. Meeker that Sorghum, cotton and tobacco are to be the great staples of the State, to follow close after, and stand side by side with wheat and corn.

The State of Illinois is the richest in agricultural resources in the Union, and now vacant lands will soon be wanted for active use. So soon as the war is closed and the building of the Great Pacific railway commences, then we shall see our State take another start in the field of progress that will place her second only to the Empire State in wealth and population.—Ed.

### Cultivation of Tobacco.

✎ EDITORS CHICAGO TRIBUNE:—As there is prospect that seed leaf tobacco will command a good price the ensuing year, and as many of our Western farmers are about to enter into the business who have had little or no experience in cultivating the crop, I beg the privilege of suggesting a few ideas to them, derived from my own experience, through your wide-spread journal. In selecting the ground for planting, the soil should be dry, rich sand loam, in order to produce a fine leaf and good flavor. Many crops have been ruined the past year by planting them on wet bottom lands. When raised upon rich black prairie soil, a coarse, thick leaf will be produced, with large woody veins and a peculiar bitter taste. The seed is slow in sprouting, and the plants are rarely large enough to transplant from the beds into the field before the 15th or 20th of June, hence in this State and in others about the latitude of our own, a rapid growth is required, in order to obtain a good crop and secure it before the appearance of frost.

In raising the crop west it is important to

protect it as far as possible from the strong prairie winds that prevail, as its value depends much upon the integrity of the leaf, therefore timber openings and a southern and eastern slope, should be selected, as far as practicable. The best seed leaf in the United States, commanding the highest price, is raised near Hartford, Conn., in latitude equally far north with our own. In this crop, as in all others, its value and success in raising, depends much upon the seed used. Of the several varieties I think the broad silk leaf adapted to our western climate. The narrow leaf grows longer and thicker, with large veins, hence the advantage of selecting seed from the first mentioned.

In commencing the cultivation of tobacco, it is of vital importance to have good seed and a bed of early plants, in order to have them transplanted in season to mature before the appearance of frost. As the seed is often ruined by frost while in the capsule, it should be tested before planting by sprouting some portions of it. The ripe seed may also be known by its emitting an oil when mashed upon the thumb nail. The bed for plants should be made rich with manure and plowed in the fall. As soon as the frost leaves the ground in the spring, brush should be strewed over the bed and burned, to destroy the seeds from weeds, and thus save much labor in weeding the bed.

One tablespoonful of seed to a rod square of ground, evenly sowed upon the surface and rolled or trod in, as early in the season as possible, will be what is required. It should be left on the surface. If raked in and buried it will never sprout. The beds should be kept clear from weeds, and should the season be dry may require watering. In order to produce a good crop, the land should be thoroughly prepared and manured, before the time for transplanting. Horse manure seems to be the best fertilizer to cultivate seed leaf adapted to cigar manufacture. It produces a rapid growth, thin leaf, fine flavor and a white ash when smoked, probably dependent upon the ammonia contained in the manure. The dressing for the land may be spread on and plowed in or placed more immediately under the plant in drills. In a wet season or dampish soil, the latter method is preferable; but care should be had to make the drill deep and cover the manure thoroughly. The drills should be three and a half feet apart, and the plants set in straight rows two and a half feet from each other. Transplanting should be done immediately after a rain, if possible, otherwise it will be necessary to water each plant; should be cultivated thoroughly and kept free from weeds, and also from the green tobacco worm that infests it. If the plants are set as they should be the 15th or 20th of June, the green worm will require attention in July. Where the fields are large the turkey is of great value in worming the crop. They travel regularly through the rows, picking off such worms as are in sight, and the turkey herd easily tells them to the rows he wishes them to follow by corn which he carries in his pocket for the purpose.

NARCOTINA.



## Apiary.

From the Wisconsin Farmer.

### Important Facts in Relation to Bee-Keeping—Letter of Dr. Kirtland.

PROF. HOYT.—In compliance with your request, I herewith communicate some suggestions that may be of benefit to the readers of your valuable Journal, many of whom are interesting themselves in the "science" of bee culture. Intending this as but an introduction to a series of articles on this subject (should they be acceptable) I will not launch out too deeply at first, but will give a few extracts from a communication from the pen of the celebrated Dr. J. P. Kirtland, of Cleveland, O., in response to a letter of inquiry from me.

Speaking of the management of his bees in early spring, he says he furnishes them with unbolted rye flour, "placed in shallow boxes, with a little straw for them to alight upon—immense quantities of which they carry into their hives as a substitute for pollen," which "stimulates them to a rapid increase of brood."

This rapid breeding in the spring, that the stock may be kept strong, being of primary importance to the apiarist, is mentioned first, then come the answers to my questions.

First Query.—What is your opinion in regard to the capacity of our country for producing honey?

Answer.—As a whole, our country is peculiarly fitted for the production of honey, different sections however, differ greatly in this respect. My apiary in Laporte county, Indiana, yields three times as much as the one I cultivate here. Soil, climate, character of the forests and of the cultivated crops exert great influence. I know nothing of your vicinity, having never been nearer than Madison, but should infer that it was rather favorable for producing honey and pollen. No State in the Union has ever had its capacity for producing honey employed to one-third its extent, nor has bee cultivation here attained that perfection which it has in certain parts of Europe. Taking the community at large, yet as both an art and a science, in the hands of a few, here it is greatly in the advance of Europe. The introduction of Mr. Longstroth's movable comb system is working a revolution which will, in a few years, increase the income from our apiaries to several millions of dollars in the State of Ohio. Europeans seem not to comprehend these improvements. The capital now invested in bees in this State exceeds two-millions of dollars, and is rapidly increasing.

The introduction of the Italian bee, and of Mr. Twining's new method of controlling and managing bees, are aiding the advancement of Mr. Langstroth's discoveries.

In conclusion, I would say that I think that honey will, in a few years, essentially interfere with the use of sugar in the United States, as it did in Great Britain down to the time of Queen Elizabeth.

Second Query.—Have you any practical knowledge of its use for culinary purposes?

Answer.—I have never tested its adaptability as a direct substitute for sugar in various culinary purposes, but do not suppose it can be very uni-

versally used for such purposes, yet it obviates the necessity of preparing sweetmeats in a family, to a great extent.

It forms the article of sweetening in the healthful Kennett's ale, and I have little doubt it would be preferable to liquorice in the preparation of London Porter and all malt liquors.

Honey as an article of food is nutritious and healthful, if taken separate from the comb, but no species of animal life can digest bee comb, except the larva of the bee moth. The French are beginning to understand this matter, and now nearly all the honey among them is promptly strained, canned and sealed, while fresh and retaining its flavor. We shall do the same as we grow wiser.

Third Query.—What amount of honey do you think a strong stock of bees and their increase should produce, etc?

Answer.—There are too many contingencies involved to allow a definite answer. Mr. Crowfoot's was certainly an extraordinary case.

Fifth Query.—Do you use the Longstroth hive?

Answer.—I do use the recently simplified and improved kind which he has just introduced. I look upon this as a *perfect hive*. Ransom & Cobb, of this city, have commenced the manufacture of it on an extensive scale, add offer it to persons having the right to its use, for \$1.50 each, which ordinary mechanics cannot do. Besides it is not only better than any other patent hive, but it is cheaper. They propose to furnish the whole Union. These late improvements are important in many particulars. It would be well for your bee cultivators to communicate with Ransom & Cobb in relation to them.

Sixth Query.—What do you think of the merits of his system of bee culture?

Answer.—It is superior to any yet devised, and is working an important revolution in the apiarian's pursuits. It has alrerd placed us (Americans) in the advance of European bee culturists. If Dzeiron and other Germans could visit sturtevant's or my apiary, and see our modes of manipulating and cultivating the bee, they would say, as the Ethiopian Queen did of old when she visited Solomon. We follow out Longstroth's system in detail.

Seventh Query.—How many hives do you keep, and to what extent are you introducing the Italian bee?

Answer.—I have forty-five stocks at my home apiary, all Italian; and perhaps fifty or sixty stocks in Laporte county, Indiana, all black bees. The latter I may change this season, if I recover my health. Fifty is my limit for my home apiary, where half the land is water, and the remainder very poor for bee feeding, two hundred is my maximum for Indiana, where the fields are prolific in bee feed.

Your eighth query you will find answered in the proceedings of our late Bee Convention, which are reported in the "Ohio Farmer," a copy of which I have sent you. My health is bad and I write with pain and difficulty.

J. P. KIRTLAND.

Cleveland, Ohio.

P. S.—I have wintered forty-five stocks without the loss of one—one queen died. My Indiana stocks I have not heard from.

A new system of quieting and handling bees has been introduced by Mr. Twining, which promises

to be one of the greatest improvements in this line, of the age. It quiets and soothes the workers, and does not terrify them as does tobacco smoke. The secret is known to Mr. Langstroth and myself, who are to test it and give the public our views as to its merits.

J. P. K.

The Doctor not residing in a good honey producing section, is not aware of how well bees are doing in the hands of many in our more favored localities; nor does it appear to me that he is possessed of all the facts in regard to honey for culinary purposes, some facts concerning which I will give in a future article.

J. M. STEBBINS.

APPLETON, Wis., Nov. 10, 1862.

—Many of our readers will doubtless recollect a person in the bee department at the Chicago Fair, who attracted no inconsiderable attention by putting live bees in his mouth, making them build comb in his hat and various other unheard of facts. This was Prof. Twining, mentioned in the above connection. That he had some secret process of charming the bees all seemed to admit, though if we recollect aright, he only claimed the non use of tobacco and whisky, and having a sweet breath that pleased the bees. The swarm of bees that the Prof. so cleverly managed was in Langstroth's old hives with shallow chambers, but though having an abundance of honey the swarm was lost during the winter, much to the regret of a friend of ours to whom it had been given at the close of the Fair.

We understand that Mr. Bolbridge who examined it, pronounced the chamber too shallow. Last winter we lost several swarms in similar chambers, and have no doubt that the same cause may be ascribed to numerous losses of swarms within our knowledge. For these reasons we have discarded Langstroth's hive, but we are ready to hear any new testimony in favor of improvement. Mr. L. has done much to extend the rearing of bees in this country, and is entitled to at least the thanks and good wishes of every lover of pure honey. Ed.

## Miscellaneous.

### Voices of Animals.

There is a chapter in the natural history of animals that has hardly been touched upon as yet, and that will be especially interesting with reference to families. The voices of animals have a family character not to be mistaken. All the canidae bark and howl. The fox, the wolf, the dog have the same kind of utterance; though on a somewhat different pitch. All the bears growl, from the white bear of the Arctic snows to the small black bear of the Andes. All the cats *miau*, from our quiet fireside companions to the lions and tigers,

and panthers of the forest and jungle. This last may seem a strange assertion; but to any one who has listened critically to their sounds and analyzed their voices, the roar of the lion is but a gigantic *miau*, bearing about the same proportion to that of a cat as its stately and majestic form does to the smaller, softer, more peaceful aspect of the cat. Yet, notwithstanding the difference in their size, who can look at the lion, whether in his more sleepy mood, as he lies curled up in the corner of his cage, or in his fiercer moments of hunger or of rage, without being reminded of a cat? And this is not merely the resemblance of one carnivorous animal to another; for no one was ever reminded of a dog or a wolf by a lion. Again, all the horses and donkeys neigh; for the bray of the donkey is only a harsher neigh, pitched on a different key, it is true, but a sound of the same character, as the donkey himself is but a clumsy and dwarfish horse. All the cows low, from the buffalo roaming the prairie, the musk-ox of the Arctic ice-fields, or the jack of Asia, to the cattle feeding in our pasture. Among the birds this similarity of voice in families is still more marked. We need only recall the harsh and noisy parrots, so similar in their peculiar utterance. Or take as an example, the web-footed family. Do not all the geese and the innumerable hosts of ducks quack? Does not every member of the crow family caw, whether it be the jackdaw, the jay, the magpie, the rook, in some green rookery of the Old World, or the crow of the woods, with its long and melancholy caw, that seems to make the silence still deeper? Compare all the sweet warblers of the songster family—the nightingales, the thrushes, the mocking-birds, the robins—they differ in greater or less perfection of their note, but the same kind of voice runs through the whole group.

### Grain Trade of Chicago, for 1862.

On this, the last day of the year, 1862, we present the readers of the "Tribune" a brief review of the Grain Trade of Chicago since the first of January last.

From the statement which follows, with the statistical tables, &c., it will be seen that notwithstanding the heavy drain on the West for soldiers to suppress the rebellion, the wheels of commerce moved steadily onward, at least so far as Chicago is concerned. Since the first day of January there have been received of flour and grain of all kinds, equal to 58,519,194 bushels—an increase over that of 1861 of over four and a half millions of bushels.

This increase in the grain trade of our city, too,

it must be remembered, is in the face of a very material falling off in the wheat crop of 1861, and a consequent heavy decrease in the receipts since the new crop came in, as compared with last year.

Then follows a table of weekly receipts of flour, wheat and corn, of which the following are the totals for the year.

Flour, (bbls).....	1,755,258
Wheat, (bu).....	13,137,533
Corn, (bu).....	31,145,721
Oats, (bu).....	3,782,422
Rye, (bu).....	976,752
Barley, (bu).....	800,476

#### TOTAL RECEIPTS OF FLOUR AND GRAIN FOR FOUR YEARS.

1859.

Wheat, bu.....	8,184,746
Corn, ".....	5,410,003
Oats, ".....	1,813,048
Rye, ".....	228,179
Barley, ".....	662,187

Total.....	16,298,163
Flour into wheat.....	3,710,060

Total.....20,008,223

1860.

Wheat, bu.....	14,568,429
Corn, ".....	15,487,966
Oats, ".....	2,029,906
Rye, ".....	295,436
Barley, ".....	623,005

Total.....	33,004,746
Flour into wheat.....	3,509,090

Total.....36,504,772

1861.

Wheat, bu.....	17,539,909
Corn, ".....	26,543,233
Oats, ".....	1,883,258
Rye, ".....	479,005
Barley, ".....	417,120

Total.....	46,862,534
Flour into wheat.....	7,230,685

Total.....54,093,219

1862.

Wheat, bu.....	13,137,533
Corn, ".....	31,145,721
Oats, ".....	3,782,422
Rye, ".....	976,752
Barley, ".....	800,476

Total.....	316,298,16
Flour into Wheat.....	3,710,060

Total.....20,008,223

It is a very significant fact, that Massachusetts five per cent. stocks bring in England from one to two per cent. more than U. S. six per cent.

[From the Country Gentleman and Cultivator.]

### Comparative Value of Wood for Fuel.

MESSRS EDITORS: The subject of obtaining and preparing wood for fuel is one of considerable importance, and although it will receive but little attention from those who own land that has a supply of wood on it, yet there is a large class of persons who are under the necessity of buying their firewood, and it seems desirable that they should know the comparative value of the different kinds of wood for fuel, in order that they may be able to spend their money to the best advantage in the purchase of their fuel. From experiments made to determine the comparative value of different kinds of wood for fuel, results have been obtained according to the following table:

Shellbark Hickory.....	100	Yellow Oak.....	60
Pignut Hickory.....	95	Hard Maple.....	59
White Oak.....	84	White Elm.....	58
White Ash.....	77	Red Cedar.....	56
Dogwood.....	75	Wild Cherry.....	55
Scrub Oak.....	73	Yellow Pine.....	54
White Hazle.....	72	Chestnut.....	52
Apple Tree.....	70	Yellow Poplar.....	52
Red Oak.....	69	Butternut.....	51
White Beech.....	65	White Birch.....	49
Black Walnut.....	65	White Pine.....	42
Black Birch.....	62		

"Some woods are softer and lighter than others—the harder and heavier having their fibres more densely packed together. But the same species of wood may vary in density, according to the conditions of its growth. Those woods which grow in forests, or in rich wet grounds, are less consolidated than such as stand in the open fields, or grow slowly upon dry barren soils. There are two stages in the burning of wood—in the first heat comes chiefly from flame; in the second, from red hot coals. Soft woods are much more active in the first stage than hard, and hard wood more active in the second than soft. The soft woods burn with a voluminous flame, and leave but little coal; while the hard woods produce less flame, and yield a larger mass of coal.

"The purpose, however, for which it is needed must be considered. A thorough white pine, compared with hickory, is only as 42 to 100 for heat. If a quick fire be needed for immediate warmth, or kindling for coal, or other wood, the pine or other soft woods is the most suitable."

The comparative value of hard and soft woods will depend very much on the purposes for which they are used. When a steady and continuous heat is required, hard wood is much the most valuable but when a quick and active heat with a steady flame is wanted, soft woods are preferable. In making sugar I prefer about equal proportions of hard and soft wood, as I can boil more sap in a given time with this proportion than with either kind separate. On railroads soft woods are used exclusively, as a quick and a rapid flame of heat is wanted. On the other hand the steady and intense heat required for the furnace and forge needs hard wood or coal to produce it. Experience would seem to indicate that for the ordinary uses of the family a portion of both hard and soft wood was the most economical; but it should always be dry wood.

C. T. ALVORD.

## Enlargement of the Erie Canal.

ILLINOIS CENTRAL RAILROAD COMPANY,  
President's Office,  
CHICAGO, Dec. 7, 1862.)

WILLIAM H. VAN EPPS, ESQ.,

*President State Agricultural Society, Dixon Ill:*

DEAR SIR:—It seems to be desirable at this time, that some organized and responsible body of gentlemen, directly representing the land interest of this State, should meet for the purpose of consultation to determine the most practical method of improving the facilities for carrying to market the vast products of this and the neighboring States west of Lake Michigan. The cultivation of the most fertile land in the world is almost rendered unprofitable through the unnecessary expense of handling and transferring our crops to tide-water. We are confined to a narrow water course. The Erie canal sufficed when the North-west sent fifty millions of bushels of grain, but is utterly inadequate to taking off our present surplus of upwards of one hundred and fifty millions of bushels.

It is almost idle to extend the internal improvements of the Northwest, or to urge the farmers to produce more, while every acre cultivated adds to the volume of business which already chokes the narrow channels of the Erie canal and three trunk lines of railway. A broad water course from Lake Erie to the Hudson, through which our lake vessels can float without breaking bulk, will cheapen the cost of transportation to the point at which we can supply the European markets profitably under all circumstances.

A leading commercial house in London writes: "Of the present population of Europe, which is two hundred and eighty millions, about one hundred and fifty millions are consumers of wheat, using annually upwards of one hundred millions of quarters, or one thousand millions of bushels. This mass of people may be considered to press always upon the means of subsistence, or supply of food, since there is no instance within the memory of man any large accumulation of wheat for want of buyers or consumers; it is only by a succession of two or three abundant harvests, that prices can be brought in Europe to a low level, say 36s. per quarter in England, 30s. on the Continent. Such was the case *once in this century*—in 1855. Overwhelming importations from your country would operate in the same way as a succession of abundant crops in Europe. These would, in course of time, depress prices to the minimum of 36s. in England, and 30s. in Europe—(the average price of wheat in England for twenty-two years has been 54s. 6d. per quarter.) Such a state would pre suppose that America could furnish an annu-

ally increasing *immense* supply at the cost of 2s. 4d., or 83 cents per bushel on board at the shipping ports, and probably no less a quantity than five hundred millions of bushels would have that effect." This reliable and carefully advised statement seems conclusive in regard to the markets. There is an almost unlimited demand for our products—wheat, Indian corn; barley, and provisions.

This question of transportation is vital to the interests of our agricultural State. Illinois has for two years sent away food enough to supply ten millions of people, and November of each of the last two years has closed down upon a surplus of food in this State as large as that sent off in the shipping season. At this moment, only a fortnight after the close of navigation, all the lines of railways east from Chicago are blocked with beef, pork, flour, and every description of provisions. It may be said that this is exceptional in consequence of the loss of Southern trade, but it is hardly the case. Iowa and Missouri suffer more from the loss of the trade with the South, for the grain of those States cannot afford the railway transportation from thence to the lakes. Their crops are largely in the hands of the producer, waiting for the opening of the Mississippi.

Nine-tenths of the products of Illinois grown near the lines of railways constructed within the last fifteen years, and upon which over three-fourths of the population of the State reside, have hitherto been forwarded to Eastern markets. If the Southern trade was resumed at once, it would, doubtless, be found at the close of navigation next year, that as large supply of food will be left in the country, solely from the want of means during the period of open navigation of the lakes and canal to take forward the surplus.

Every experienced farmer will confirm the statement that it requires four or five years before new settlers, even upon our easily managed prairie soils, can furnish a large surplus for market, and, I think, will agree, that the effect of the extraordinary emigration to this State, between 1852 and 1856, was not apparent in the surplus products until the harvest of 1860. We have now been blessed with abundant harvests, and have over-taxed all the resources of the avenues of transit to tide-water to such an extent that our own competition to sell has destroyed our profits. The charge by water upon a bushel of corn to New York, for instance, has for two seasons past, been four times as great as the cost of producing it. We must regard this question, not only as essential to our own maintenance and prosperity, but as one of the highest national importance.

This food producing district should have closer

connection with the commercial interests of the East, and of Europe, by a NATIONAL CANAL. Every fibre of the national wealth and prosperity will be strengthened thereby. The harvests from our prairies will double our foreign exports, when this grain is poured out as rapidly as it can be furnished even by our present population.

Within five years after the construction of a ship canal from the Erie to the Hudson, a necessary outlet from the lakes to the sea, the exports of grain from Chicago alone may safely be estimated at two hundred millions of bushels.

For two or three years past we have had a surplus equal to ten times our local wants, and vastly beyond the capacity of the canal railroads to take away. The cost and delays of transportation are so great that the farmers of this State reap no fitting reward for their industry. Their crops are wasted, and, living in this abundance which is wanted everywhere else, they are poor, and need the comforts and luxuries of life. Single-handed, they cannot remedy the evil. For aid they must add immensely to the national wealth.

I would respectfully suggest that your State Agricultural Society should consider this matter; if in your judgement it is wise to do so, should memorialize Congress; and, if deemed expedient, suggest to your Legislature the propriety of instructing your representatives and senators to urge upon the National Council the importance of the enlargement of the Erie Canal—a subject which is now under consideration in Congress.

I am your obedient servant,

W. H. OSBORN.

The enlargement of the Erie Canal, and that of our own Illinois and Michigan canal, are not only military but commercial necessities. If the general government have the power to provide for commerce on salt water they certainly have on fresh, and thus we see no reason these two great and important works should not be put upon their true basis. With this view let us urge them forward. It is time the West was out of leading strings, and that her just rights should be regarded. While the whole country was under the control of the South, it could not be expected that the Lake commerce should be fostered, nor that the interest of the Northwest should be guarded. But now we have a new condition of things. We are no longer ruled by the narrow minded cotton and sugar grower who would usurp all to himself, but become a part and parcel of the political machinery of the country.

The arguments of Mr. Osborn are to the point, in regard to the importance of the work, and need

no further defence in that regard, and all we have to do is to insist upon the justice and value of the work to the West. The West needs not only the Mississippi river, but the great artery of trade to the coast, and to connect these to the Illinois and Michigan canal. We should not for a moment permit our Representatives in Congress to lose sight of these improvements.

**HOW TO PREVENT HORSES FROM KICKING IN HARNESS.**—Attach a stout piece of ash stick to the collar at the breast, fix it under the horse's chin so that he cannot bend his head towards his breast, and he cannot kick high enough to injure anything; if a good horse, and worth the trouble, a bit of bright steel may be fixed on his collar, with a claw to catch him under the chin; this will answer the purpose and look well. If a mare, part her or turn her to the stud; her foals, if colts, may not kick when well brought up; if fillies, I fear, no matter what education they get, they will have the kick in them. Sometimes mares kick from ticklishness; it is a ticklish thing to deal with them, and I fear their daughters will be ticklish. Kicking I am satisfied, is hereditary "in the female line." I had a mare that was dangerous to look at, she had such an ugly use of her hind legs, and by buckling a stick under her chin, fastened to the collar in the way I have described, I defied her, I defy any horse to kick so as to injure the vehicle or himself. This is certainly better than tying up one fore leg, as a horse could not trot upon three.

I had two fillies out of this mare, and they were both kickers. I know many instances of kicking being hereditary.

I think rearing is not bred in the blood. I think stubbornness is not hereditary.—*Iroquois Republican.*

**MILWAUKEE & PRAIRIE DU CHEIN ELEVATOR.**—This building on the opposite bank of the river is now completed, except the exterior wall of brick. It is the largest and most complete elevator west of Lake Michigan, and attests alike the enterprise of the R. R. Co. and the immense business of the upper Mississippi that is tributary to this road.

The building is 55 by 185 feet, resting on a wall of solid Masonry five feet thick, is eighty feet high above low water mark, and has a capacity of 200,000 bushels. It is built in the most perfect and substantial manner, furnished with the best and most approved machinery for elevating, and eight of Fairbanks' 125 bushel Hopper Scales, which, for style and finish, excel anything we have before seen. In this the company have shown their usual discretion and judgment, by securing to shippers the certainty that they will get correct weight—a very important consideration with those who have produce to sell, or to send to market.

**AMERICAN SECURITIES IN LONDON.**—U. S. 5's 61½; Va. 5's 49@51.



## Agriculture.

**ABANDON THE RED CORN.**—At a farmers meeting in Ottawa, recently, a grain buyer present urged farmers to abandon the culture of the red or red mixed corn. He said it would bring three to four cents less than either yellow mixed with white, or either of the latter pure—in the same market. A letter on this subject was also received by the secretary of the meeting, from the proprietors of a grain elevator in Chicago, and heavy grain dealers, Messrs. Munger & Armour, from which I make the following extract:

"It has occurred to us that it would be a favorable time to present to farmers the propriety of changing their seed corn to that of yellow or yellow mixed. The red corn, while it is not more productive or less expensive in its culture than yellow or yellow mixed, realizes on an average four cents per bushel less than yellow, and about one and one half cents less than yellow mixed, in the same market. \* \* \* We have had a large and long experience in handling, selling and shipping all kinds of cereals, and in doing so, we have found red corn difficult of sale in this market; still more so on the seaboard; and in New England where corn is wanted for meal purposes, it is altogether unsaleable. It is obvious that where there is not a ready demand for an article, such as red corn, sellers are compelled to submit to the terms of the buyers, and in consequence the prices realized are often the source of complaint and dissatisfaction to the owners. With yellow and yellow mixed corn, there is always a ready market at current prices. It may also be mentioned, that in warehousing red corn, here and elsewhere, it has frequently to be mixed in bins with corn of a more desirable color to the loss and injury of warehouse men and the holders of the better grade."

### Seedsman and Bad Seeds.

A late number of the "Horticulturist" contained a sprightly communication on the frauds of seedsman, which we intended at the time to have copied in part, with some comments, but were interrupted. Since then the "Rural New Yorker" has inserted nearly the whole, with some very just comments. We wish to say a few words on the same subject.

The communication referred to spoke of the miserable stuff under the name of flower seeds, that is put up by irresponsible parties, and placed for sale in various obscure country stores, and sold to those who cannot be expected to hunt up the original offenders. These seeds are old refuse stuff, too old to grow, under true or false names as the case may be, and perhaps with a small portion of fresh seed mixed, that grow freely, to prevent detection. Often big names are given to these old or common seeds, and a price charged as big as the name. When they grow, great novelties prove to be very common things, and the purchaser is not a little chagrined to find that what he bought for "Dianthus Chinensis Hedwiggii Flora Plenae Hybridus Imperials," proves to be a very plain

pink. The purchasers of these seeds are thus not only cheated out of their purchase money, but the ground which they had so carefully prepared, is encumbered with worthless growth, and they also defrauded of their labor and of a year of their lives, so far as the garden is concerned. This is one part of the story, and the practical deduction is, buy seeds of good, reliable men of established character, even if you have to send a long distance and incur additional expense. It is better to give six dollars than three for a collection of seeds, if it will insure the buyer against a loss of fifty dollars or more in cultivating his land a whole year for nothing. The extensive advertisers in our columns each spring, give, we have no doubt, good seeds generally and are worthy of confidence; we now speak of one of them from our own knowledge, (James Vick, of Rochester), from whom we purchased last spring the seed of a beautiful collection of annuals, which gave a most brilliant and satisfactory display through the summer. They were in the hands of a skillful gardener, it is true, and this brings us to the second chapter of our remarks, namely, on the importance of right management as well as good seed. We have often known seedsmen to be denounced, when accident showed all the fault was with the gardener. Excellent seed have failed entirely from too deep planting, from a hard, sterile soil, from a want of moisture, from a rough, cloddy surface; and often when they have grown they have failed to give satisfactory results simply from neglect, a want of culture, being allowed to grow too thickly together and from other bad treatment. It would be as reasonable to buy a gold watch and use it for a candle snuffer, or a lady's hat and use it for a coal hod, and then find fault with the jeweler and milliner, as to cast censure on seedsmen for the neglect of the gardener.

As a side illustration of this point, we give briefly an anecdote from the same number of the "Rural New Yorker," of a man who was very unlucky in preserving fruit trees from the nursery. The writer of that article says that when traveling in western Canada, he observed a house standing on a good farm alone and bare, without fruit or shade trees. The owner, who happened to be near, said he had twice planted an orchard, but not a tree would grow—the trees were half dead and worthless when they came—he thought nurserymen generally a dishonest set, whose business was to impose on honest farmers. He had taken good care of his trees, but all died. He would set out no more, and preferred buying his apples. Passing on a short distance, a beautiful orchard was seen on another place, about six years old, and as thrifty as could be desired. The owner was asked how he succeeded in raising such fine trees when his neighbor failed. "I take care of them," was the reply. "I don't buy them to throw away or make kindling, or for cattle browse." The failure of the unnamed neighbor was then alluded to. "I know who you mean," was the reply, "my trees were bought with this lot. He planted his in a wheat field, followed a year or two with grass, where the cattle had full range, and then with wheat again. He calls that good care, but I don't."

—Country Gentleman.

☞ The latter part of this month is the time to make hot-beds.

### The Multiplication of Weeds

On all parts of the land owner's premises weeds are now beginning to ripen their myriad seeds. Very few can say they have none. And while they have any at all to increase and multiply, it is hard to say how many millions there may be another year. These remarks apply more particularly to annual weeds, increasing solely by their seeds.

We have just made an examination of the number of seeds which some of the more common annual weeds ripen on a single plant. The green foxtail plants varies from 2,000 to 4,000 seeds; the brown foxtail 1,000 to 2,000; the cock's foot Panicum about 2,000; the Rag-weed, or Ambrosia, often 15,000; the Pigweed or Amaranthus, 5,000; and the Lamb's-quarters, also called Pigweed, (che-nopodium), often at least 20,000. We lately rode past a "garden" where there were plants of the latter at least seven feet high, and the number of seeds which each bore must have been at least 50,000 to 100,000. *A single plant would thus seed ten acres, allowing one plant to every two feet square!* Many farmers wonder where all the weeds come from—they cannot conceive how so many should have become mixed through the soil, and some consequently insist that they grow without seed, spontaneously. Let us examine a moment, and see if so improbable a cause is necessary to account for their vast numbers:

In a late number of the "Country Gentleman," a series of recent experiments by one of the editors, is given to show that by burying such coarse seed as wheat six inches deep, they would scarcely grow, and beans at that depth would not grow at all. When we come to such small seeds as those of Pigweed, Foxtain, etc., where from twenty to fifty are required to equal the bulk of a single grain of wheat, we may at once perceive that they would not vegetate unless very near the surface. The soil might therefore contain a vast number in a dormant state, ready to spring into wild luxuriance as soon as the plow throws them up to the surface.

But if the soil were so full of these seeds, would we not at once perceive their presence all through it in working it with the plow, spade or hoe? Let us look a moment at this question. A bushel of Pig-weed seed contains over 50,000,000—10,000, as we have shown, would seed an acre, or a bushel 5,000 acres. But we will be extravagantly liberal, and give a bushel to only one acre—enough for a dense growth of eight plants to every square inch. Yet a bushel is only one-twenty-thousandth part of the bulk of the soil on an acre of ordinary depth; hence there may be fifty million Pig-weed seed all through an acre of soil, yet constituting but a twenty-thousandth part, and quite imperceptible even to close observation. No wonder then that whenever the soil is turned up to air and light, these numberless seed start into germination, and the whole surface is soon covered with a close green growth.

Their number is almost beyond estimate. Their increase is incredible. Every farmer who passes by a single weed should know what figures say of the increase it may occasion. Take the lowest number we have given for the product of seed on one plant, or only 1,000; next year, 1863, it may be 1,000,000; in 1864, 1,000,000,000; in 1865, 1,000,000,000,000. This will do for three years—our young arithmetical readers may carry out the calculation for the ten years if they wish.

This, altogether, looks formidable. The best way, however, to conquer an enemy is first to know his strength. Such a thing has been done as clearing a farm of weeds, and it may be done again. Plowing, harrowing, careful cultivation, well conducted rotation, seeding to grass, etc., have performed wonders on the farm at large; and the hoe, spade, and thumb and fingers, have been as successful as in the garden. The great error which most have committed, as we have elsewhere remarked, is in not making the war one of complete extermination. A very few stragglers are enough to increase and multiply. If a farmer has a ten acre field of weeds, and if he succeeds in destroying ninety-nine hundredths, he is satisfied; he thinks he has done the thing "up brown." But in a year or two he has the same operation to go over again. It would be far more economical, and save also a great injury to an otherwise half smothered crop, to finish the job up completely and totally—search and research till the last solitary straggler is demolished. This is especially so with gardens. Let nothing go to seed—hunt for the last one—the soil will soon be worked clean, and labor will be lessened, and crops greatly increased. But the price of freedom (from weeds) is eternal vigilance.—*Country Gentleman*.

**COTTON-GROWING IN NEW JERSEY.**—An extensive cotton growing enterprise has been lately attempted in Burlington county, in this State, by Edward G. James, a gentleman of wealth and large estate. The enterprise was commenced in May last, when Mr. James appropriated three acres to the cotton culture. The seed was procured from North Carolina, the ground was carefully prepared by deep cultivation and and heavy manuring, and about the middle of May the three acres were planted. The spring was cold, wet, and late. The soil chosen was unfortunately too heavy. Notwithstanding these drawbacks, with a general inexperience in the culture of cotton, the crop has grown with extraordinary vigor. At this time there are thousands of the plants that stand five feet high, while their branches interlock midway of the rows. They are loaded with blossoms and bolls, some showing as many as sixty bolls. These are in all stages of progress, some opened and displaying the fleecy contents of a well filled boll. On Monday night last the first frost fell upon them. It was tender enough to blacken all tender vegetation as though fire had swept over it; but the cotton plants are far from being killed. Numerous southerners, familiar with cotton growing, have visited this trial plantation, and they concur in saying that they have never seen a more promising cotton field even in Georgia. Some cotton has been gathered, and more will be secured. What the whole yield may be is yet uncertain. The season has been unfriendly, the experiment was a trial one, yet so far it has not been successful.—*Newark Mercury*.

**HOG CHOLERA IN PEORIA COUNTY.**—We understand the hog disease is committing great ravages in Trivoli. R. C. Redding informs us that he has lost at least fifty within the last few weeks, embracing many fine, fat ones. Dennis Orten has lost nearly if not quite as many, while Orson Johnson, Hiram Sperry and others of his neighbors have also suffered largely, though perhaps not to the same extent.—*Peoria Transcript*

## Horticulture.

From the Country Gentleman.

### Good and Bad Fruit.

The remark is often made, that "it is as easy to raise good fruit as bad." This refers to the varieties propagated and planted out. In other words, it is as easy to graft a pear tree with a Seckel and Sheldon, as with a choke pear, or a Colmar d'Arenberg. We may as well raise the Swaar and Northern Spy as the worst imaginable sour and astringent cider apple, so far as the occupation of the ground is concerned. A frost or chicken grapevine will bear no more than a Delaware or Rebecca; a horse plum grows no more readily than a Lawrence, Gage or McLaughlin. Hence all the care taken by pomologists and horticultural societies to import, gather up, prove, examine, and select the finest and most valuable sorts; fortunes have been invested in experiments of this kind, and the expenditure has been repaid.

But this is not the only care and labor needed to obtain the best fruit—if it came without further attention, we should rate it too cheaply, and not sufficiently appreciate the blessing. In travelling through the country, and visiting the grounds of fruit raisers and examining the exhibitions of pomological society, a very marked difference is observed in the same variety as grown on different grounds. In one case it is small and poor flavored; in another it is large, beautiful, rich and excellent. The owner of the poor fruit is much disappointed in what he expected to see, and considers himself as "badly humbugged" by the nurseryman who sold him the trees. The successful cultivator takes his specimens to a fair and sweeps off the premiums with their excellent quality and magnificent appearance. Now the question at once arises, what is the cause of this difference? And it is just such questions as we like to hear asked.

1. The first, and perhaps the most prominent cause, is *cultivation*. Place a tree in grass land—or give it no cultivation—let the surface become baked hard, like flagging, or allow weeds to cover the surface—and the tree will have a feeble growth, and the fruit, as a necessary consequence, will partake of the condition of the tree. A feeble tree will, of course, bear small fruit. Hence one reason why young trees often produce larger and finer specimens than old and stunted trees. Cultivation alone has often changed both size and quality in a surprising degree. Some years ago a few trees of the Seckel pear were observed to bear very small fruit; they were then standing in grass, when the whole surface was subjected to good cultivation. The next crop had pears at least triple in size. A St. Ghislain tree, on another place in grass land, bore some of its first crops, and disappointment was felt at the small size and poor quality of the pears. A herd of swine afterwards accidentally rooted up the grass and reduced the land to a mellow surface. The pears that year were greatly increased in size, and so much improved in flavor that they would not have been recognized as the same. The Duchess Angouleme, when large and well grown, is an excellent fruit. When small, it is perfectly worthless. T. G. Yeo-

mans of Walworth, N. Y., who has been eminently successful in its cultivation, and obtained \$35 per barrel for it, has found high culture of vital importance, and has remarked that when the specimens do not weigh over four ounces, they are *no better than a raw potato*; and this, we think, has generally been found true. There is no question whatever that this fine pear, as well as many other fruits, have been placed on the rejected list by some planters for want of good management, and deficient or no cultivation.

2. There is another requisite for obtaining good fruit—almost as important as the other, and in some respects more so. This is *thinning the fruit on the tree*. And yet it is scarcely ever practiced. The farmer who takes great care not to have more than four stalks of corn in a hill, and who would consider it folly to have twenty, never thins any of the twenty peaches on a small shoot, and they are crowded, small and flavorless. The gardener who would allow twenty cucumber vines in a hill, would be called an ignoramus by his neighbor who at the same time suffers a dwarf pear to bear five times as many specimens as it could profitably mature. The herdsman who should attempt to summer ten cows on an acre of pasture, is not greatly unlike the orchardist who allows his apple trees to bear more than the trees could profitably support; and ten starved cattle would be a counterpart of the numerous stunted specimens of fruit.

E. Moody of Lockport, a very successful fruit marketer, lately stated before the Fruit Growers' Society at Rochester, that he had found great profit in thinning the fruit on his peach trees; that while he had much fewer specimens in consequence of thinning, he had about as many bushels; the larger peaches could be picked in far less time; and while his fine crop sold readily at a dollar and a half per basket, his neighbor, who did not practice thinning, found it difficult to sell his for thirty-seven to fifty cents. President Wilder said, in his recent address before the American Pomological Society, "One of the best cultivators in the vicinity of Boston has reduced this theory to practice, with the happiest effect, in the cultivation of the pear. He produces every year superior fruit, which commands the highest price. Some have doubted whether this practice can be made remunerative, except in its application to the finer fruits. But another cultivator who raises an annual crop of the best apples, assures us that the secret of his success is the thinning of the fruit, and he has no doubt of the economy of the practice."

These two practices—*good cultivation and thinning the crop*—are the foundation of the difference between such superb and magnificent specimens of the pear as graced the extended tables, and densely filled the vast hall occupied by the Massachusetts Horticultural Society, and such miserable fruit as we sometimes see borne on the grass-grown, weed-choked, mice-gnawed, sickly-leaved, forsaken trees on the slipshod farmer's grounds—planted out with hardly the expectation, but rather with a sort of dim hope that they would grow and take care wholly of themselves.

One of the best things that a horticultural or pomological society could do, would be to place conspicuously on exhibition a collection of such splendid fruit as might be raised under all the favorable influences of good culture and judicious thinning; and another collection beside it with all

the marks of small size and scabbiness which might be expected from utter neglect. One collection should be marked "FRUIT RAISED UNDER THE EYE OF INDUSTRY AND VIGILANCE," and the other labelled, "FRUIT ALLOWED TO RAISE ITSELF."

Pruning should not be omitted as an important requisite, but so far as its influence on the fruit is concerned, it comes under the the same head as thinning, and is indeed a useful auxiliary to the latter. A peach tree may generally have its fruit readily and easily thinned by cutting back; and an apple tree that is pruned at the top by thinning in from the outside, (instead of trimming and thinning up from below, and leaving the outside as thick as ever) may have the proper number of specimens easily controlled.

Orchardists have got to take hold of this matter. Orchards are increasing in number, competition will arise, purchasers are improving in discrimination, and will not be satisfied to pay much for poor stuff. Shrewd orchardists, who know how to secure a permanent demand for their products, as well as to obtain the highest prices, will be first to adopt these modes of manufacturing the finest article, and unless others fall in they will be left in the lurch. The next twenty years, if the world moves on as it has done, will witness an astonishing education in the masses, in a knowledge of excellent fruit, and in the discrimination between a poor and a fine article. If they can be supplied with the latter, they will buy and consume; if nothing but the former can be had, they will reject it with disdain. This will become true to a great extent, sooner or later, and the raisers of fruit for market must trim their sails accordingly.

### Curl in the Peach.

Among the pests to which the peach is liable, the "curl," though not by most persons considered of much consequence, is, I think, worthy of more careful observation, to ascertain, if possible, its cause and the cure.

It has been attributed to frost by many, and by others to insects; but whether of these is the cause, or whether indeed it is not owing to some constitutional defect of certain varieties, I cannot now determine, though the fact that some varieties suffer more from the curl, or are more liable to have it than others, leads me towards the last conclusion. I have now about forty varieties, most of which are bearing fruit this year. Some that were the fullest of blossoms in the spring, lost afterwards every leaf by the curl, and day by day the young fruit fell, until at last there was not a peach left. The variety which suffered least from the curl, and of which every tree is now loaded with peaches, is one which I received a few years ago as Druid Hill. It also did best last year. The next best are Goose Mignonne, Smock, Snow, Ward's Late Free, Morris White, Old Mixon Free, and Crawford's Early.

George 4th, Royal George, Lagrange, Honey, Red Rarieripe, Stump the World, Susquehanna, and New York Rarieripe, have lost almost every peach, though very full in the spring.

In reading the *Monthly*, which I have done from its commencement, I have always prized those article which had been contributed by observing working men, and if every man who plants, would, as he looks over his trees, or as he walks among

his flowers, note any peculiarity, and from time to time give the readers of the *Monthly* the benefit of his observations, we would, in time, have a vast fund of information.

[It seems to be certain that the curl is owing to cold; whether the injury is received while in the bud, or whether it is the consequence of cold after the leaves have expanded is not clear. This could easily be tested by putting a tree liable to curl after it has been out all winter, and keeping it in a greenhouse before the leaves expand. It is to be regretted that those who have time and convenience for experimenting, do not settle these questions for us. After the war is over, we hope to see a National Experimental Garden established, where these things may be tested for the benefit of the whole horticultural community.—*Ed. Gardener's Monthly.*]

**REMEDY FOR DIPHTHERIA.**—A Pennsylvania correspondent writes us that the Diphtheria is very prevalent in some parts of that State, and says that we would confer a great favor upon the sufferers by re-publishing the remedy given about a year ago. With this request we comply. It is as follows: "Make two small bags that will reach from ear to ear, and fill them with ashes and salt; dip them in hot water and wring them out so they will not drip, and apply them to the throat; cover up the whole with a flannel cloth and change them as often as they become cool, until the throat becomes irritated—near blistering. For children it is necessary to put flannel cloths between the ashes and the throat, to prevent blistering. When the ashes have been on a sufficient time, take a wet flannel cloth and rub it with castile soap until it is covered with a thick lather; dip it in hot water, and apply it to the throat, and change as they cool; at the same time use a gargle made of one teaspoonful of cayenne pepper, one of salt, one of molasses, in a teacupful of hot water, and when cool, add one-fourth as much cider vinegar, and gargle every fifteen minutes until the patient requires sleep. A gargle made of castile soap is good to be used part of the time." A correspondent in Maine, in sending the above remedy, says there had been a number of deaths from Diphtheria until this remedy was used, since when all had recovered.

**MOST FOOD TO THE ACRE.**—Humboldt estimates that an acre of ground planted with bananas, is sufficient to support fifty men, while the same extent of land in wheat would barely supply the wants of three. If the climate of the Valley of the Mississippi would admit of the cultivation of the banana, at the above rate, as there is said to be land enough for eight millions of farms, of one hundred and sixty acres each, one half or four millions, would sustain a population of thirty-two thousand millions, which is more than thirty times the present population of our globe.

✂ A correspondent, describing a portion of the coast of Texas, says: "Now you see a wind mill and then an old woman with prunes to sell; sometimes a house on piles with outside arrangements about as picturesque as a blowed steamboat."

## Poultry.

From the Country Gentleman.

### All About Hens.

Did the readers of the "Country Gentleman" ever notice that hens are not alluded to in the Old Testament? In the New Testament they are referred to in that well known apostrophe of our Savior to Jerusalem (Matt. 23, 37), and the crowing of the cock is mentioned in connection with Peter's denial of his master, and as marking the watches of the night. And yet the Jews could not say, as did one of the characters in Shakspeare's "Winter's Tale," "I have no pheasant, cock or hen," as the barn-door fowl was a native of the East, and the present inhabitants of the Holy Land cherish it as their most common associate, and substitute it and its eggs for nearly every other kind of meat. Neither are there any representatives of poultry in the discovered Egyptian sculptures or painting, neither of camels, and as the latter were known in Egypt, certainly as early as the time of Abraham, it is no proof that barn-door fowls were ever rare with that ancient people.

Among the Greeks they were highly esteemed, and cocks and hens were imported from Egypt and India. The fowl house was so contrived as to receive from the kitchen a supply of smoke which was supposed to be agreeable to these delicate foreigners. Fifty fowls was the limit allowed to one farm-yard, and one male bird to six hens. They were put to sit about the vernal equinox during the first quarter of the moon, in nests carefully made, and into which as a talisman against thunder an iron nail and sprigs of laurel were thrown. In the story of the ass, the ox and the laborer, in the introduction to the Arabian Nights, the cock has fifty hens, and rebukes his master for his obsequiousness to one wife in this wise: "By Allah! our master has little sense. I have fifty wives, and I please this and provoke that, while he has but one wife and cannot manage with her." It would appear from this, and the accounts we have of the Greek farm-yards, that fifty was the usual number of hens or cocks and hens thought necessary for a single homestead.

The ancients had many superstitions about hens. Plutarch, among other curious things, "whose causes we cannot discover," mentions that of the "hen's turning round with a straw in her mouth after she had laid;" and also asserts that "winds passing through hens at breeding time impregnate."

Phiny says, "the hens of country houses have a certain ceremonious religion. When they have


laid an egg they fall a trembling and quaking and all to shake themselves. They turn about also as in procession to be purified, and keep a ceremony of hallowing (see hallowing, i. e., cackling) as well themselves as their eggs."

According to the notions of the Romans, (tallying in a measure with ours), a good and kindly hen was known by her comb being straight and upright, and double crested. The extra toed (see Dorkings), were always preferred, and there was also a dwarfish kind, called by the English travelers, "gig hens, extraordinary little, and yet fruitful, a thing not seen in any other kind of fowl, which lay and miss not, but seldom sit they on any eggs; and if they do, it is hurtful to them."

The best eggs, they thought, to put under hens when they sit, were those that were laid ten days before at the utmost. "For neither old eggs nor yet very new laid be good for that purpose." Sometimes as many as twenty-five were put under one hen; but the general rule was to "let them cover thirteen eggs, howbeit never under nine."

That which troubled the hens of antiquity, as well as the "biddies" of our era, was "a certain distillation of a phlegmatic humor, which causeth the 'pip,' and most of all between harvest time and vintage." The cure was to keep them hungry and long fasting; also to let them perch in a smoky place, especially where the fume was made of bay leaves and the herb of savine. It is good moreover to draw a little quill or feather through their nostrils, across, and to remove or shift it every day. As for their meat, let it be some cloves of garlic shred among their corn, or "else let their meal be well infused and steeped in water wherein an owl hath washed and bathed herself." Pliny.

In the early and purer history of the Roman Commonwealth, one of the sumptuous laws provided that no man should have his table served with any fowl, "unless it were one hen, and the same a 'runner only, and not fed up and crammed fat." Cooping up poultry was then recently devised by one Strabo, a gentleman of Rome, and the statute was leveled against this practice of "keeping fowls within narrow compass and cages, as prisoners, to which creatures nature had allowed the wide earth and air for their scope and habitation."

 Chickens should, in winter, where a quantity are kept together, be provided with a roosting place, open on the south and closed on the north. Their own warmth will protect them from the cold when thus provided, and hen lice and other vermin will not then trouble them.



## Editor's Table.

BAILHACHE & BAKER - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, FEBRUARY, 1863.

THESE long winter evenings appear to have been made for the benefit of the farmer, giving him ample opportunity to study his calling and to improve himself in various ways. A prudent farmer provides himself with useful reading that his family do not grow up dolls and himself relapse into indifference. The father who only furnishes food for the body, and leaves the mind unsupplied, has certainly neglected more than half his duty.

Do not dose your children with a surfeit of agricultural work, of theology or of science. The daily papers of the day have become, to a large extent, the educators of the people; but valuable interesting books should not be neglected.

APPLE SEEDS.—Those wanting apple seeds will do well to consult the card of John Box.

SUGAR MAKING.—Next month we shall look to this important interest. Sugar can now be made from the Imphee with a certainty of success, and is no longer left to accident.

A NEW MOVE.—The publishers have been watching the times in regard to a forward move with the FARMER, and they now believe the time has come when this can be done. They have promised us twenty-thousand subscribers in Central and Southern Illinois before the close of the year. As the FARMER is now the cheapest rural publication in the North-west, this number ought to be reached at an early day. It will be seen that they now give to the getter up of clubs of twenty an extra copy. It is but little trouble to get up a club of twenty at fifty cents each. These are not all to be got up at one time but can be sent in as obtained. All copies sent out of the State are at the rate of fifty cents whether in clubs or to single subscribers. Let each old subscriber see what he can do in the premises. Money is now plenty, and with a little exertion a large list can be rolled up. In addition to subscribers, we want practical letters in all departments of the farm, the orchard and the garden. With a new accession of subscribers we are promised a cover, new dress, and other improvements, one of which is ON TIME. We hope the country press will give us a lift, as they can thus benefit both their readers and the cause without injury to

themselves, as the FARMER does not invade their dominion, being strictly composed of rural affairs. We have thus far received many favors at their hands and trust we shall be laid under renewed obligations.

DIPHTHERIA.—A gentleman who has administered the following remedy for diphtheria, says that it has always proved effectual in affording speedy relief. Take a common tobacco pipe, place a live coal within the bowl, and drop a little tar upon the coal, and let the patient draw smoke into the mouth, and discharge it through the nostrils. The remedy is simple, and should be tried whenever occasion may require. Many valuable lives may be saved, the informant confidently believes, by prompt treatment as above.

We do not know how valuable the above may be but it is worth a trial. A gergle of salt and water is probably the best thing resorted to.

MANURING EVERGREENS.—A correspondent of the Gardener's Chronicle speaks of the great success attending the growth of conifers by copious manuring. Spruce trees were planted in manured and unmanured ground; the former were at least twice as high, and exhibited a more robust and healthy appearance. An Araucaria, which was poisoned by manure, made a fine and successful growth after being well enriched with half-rotten manure.

FRANKLIN GROVE NURSERY.—The closing out of this old and popular establishment offer unusual advantages to the tree planter. Mr. W. has the largest orchard in the State, and is therefore compelled to close out the nursery business. Long years of experience in orcharding has taught him the best variety for the prairie orchardist, and his stock consists of these. We observe that several of our old nurserymen are going out of the nursery business and into that of fruit growing, the nursery business not having proved as profitable as anticipated. It is, in fact, similar to that of the country merchant in which there are a few successful, but the great majority of whom make it a losing business.

MEDICAL EXAMINER.—The number for November is at hand, and is filled with valuable information to the practitioner of medicine. \$2.00. Chicago, Ill.

CISTERN PUMPS.—We have a cistern pump costing two dollars and fifty cents from the house of H. W. Austin, Chicago, one of the best made and cheapest pumps that we have seen. The pipe weighs about three and a half pounds to the foot and costs ten cents a pound making for an eight

feet cistern about six dollars. This is cheaper than a wood pump when we take into consideration its durability and constant good condition.

**WISCONSIN FARMER.**—The publishers of this valuable journal have decided to continue the old price and style of their paper, trusting to a larger patronage. This we doubt not they will receive, for the Farmer is a live practical farm journal.

Price one dollar.

Hoyt & Campbell, Madison, Wis.

**HORTICULTURIST.**—The January No. is at hand and gives evidence of improvement if that were possible.

Two dollars a year.

Mead & Woodward, New York. Or club with the FARMER at two dollars and fifty cents.

**TO ADVERTISERS.**—The rates of advertising in the FARMER is unusually low, and it will be found to the interest of all those having dealings with the farmers of Central Illinois to avail themselves of it. We shall always speak freely and give our convictions in regard to our advertising patrons and their wares. We do not intend to be made the cat's paw of interested and selfish parties to impose upon our readers.

**THE GRAIN TRADE OF CHICAGO.**—This trade is an index of the progress of the West when taken in the aggregate, but in its several departments. The corn trade is interesting as well as valuable to the West.

The improved modes of culture has had much to do with its rapid extension. Under the old system corn cost at least thirty cents in the interior, now it is profitable at twenty-five cents.

The following table shows the receipts of corn in that city during the past eleven years.

	Bushels.
1852.....	2991,011
1853.....	2,869,339
1854.....	7,490,753
1855.....	8,532,277
1856.....	11,883,398
1857.....	7,409,000
1858.....	8,260,033
1859.....	5,410,003
1860.....	15,487,966
1861.....	26,543,233
1862.....	31,145,721

Rye has come in demand of late, and replaces so much corn for distilling.

The following table shows the receipts for five years:

#### RECEIPTS OF RYE FOR FIVE YEARS.

Years.	Bushels.
1862.....	976,752
1861.....	479,005
1860.....	295,436
1859.....	228,179
1858.....	70,031

Rye is now worth in that market sixty-seven cents against seventy-five in 1860, and thirty-two a year ago.

**ROBT. BUIST & SON.**—This old firm is pretty well known throughout the West. Those wanting flower or garden seed from Philadelphia would do well to send to them for a catalogue.

**THE VALLEY FARMER.**—We are glad to see this paper in a prosperous condition, notwithstanding the low condition of farming in Missouri. The January No. contains a valuable essay on the culture and manufacture of Sorghum and Imphee. \$1.00 N. J. Colman, St. Louis—monthly.

**HOVEY'S SEED STORE.**—Albert H. Hovey, of Chicago, has removed his seed store to 194 Lake St., corner of Wells. This is in the most business part of the city, and convenient to all the railroad depots. Hovey is building up an immense business, and we most cheerfully commend him to those in want of goods in his line. We have always found him attentive to his business, accommodating, his prices reasonable, and, what we prize most, good seed and implements.

**NIAGARA NURSERIES.**—It has been claimed that the soil and climate of Lockport, New York, was especially valuable for the healthy growth of the pear, and large stocks have been grown in consequence of this belief. The Messrs. Moody offer in this No. of the Farmer a large stock of pears and other fruits at remarkably low rates, and our large planters and dealers would do well to consult them without delay. We have ordered a portion of our spring stock of them. It is a pretty well conceded fact that pears are rather a difficult tree to grow with us, and that most nursery men prefer to buy their trees at one or two years old, and acclimate them one or two years before selling to the planter. This has been our practice for some years, purchasing two year old trees, and selling them at four years old. We then have good, well acclimated trees. Some years since we had a lot of pear trees from Lockport, which gave us the best satisfaction. A large number of the best pear orchards in the south part of the State are from that location.

**TREE AND SHRUB SEEDS.**—We are in receipt of Mechem's list of tree seeds. . Nurserymen and others wanting tree and shrub seed, should address Thomas Mechem, Germantown, Pa.

**FARMERS' ADVOCATE.**—This journal, with the incoming year, resumed its place among the weeklies of the day. We always hail returning prosperity with pleasure, especially among the craft agricultural. Mr. Bonham has re-entered the field with new assistants and in one respect at least out of the usual line—a lady editor—not that lady editors are a new commodity, but at least a new feature in conducting an agricultural journal.—Miss Murtfeldt, the lady in question, has for some years contributed to our agricultural journals, among them THE ILLINOIS FARMER. She is a pleasing and vigorous writer, and having been educated on a farm, is well posted in the details of her duties. That she will wield a more practical pen than many of our would be agricultural writers there can be no doubt. Inbued with a deep love for rural pursuits, and with a mind capable of taking in its vast and responsible duties, we see no reason why she should not be cordially welcomed to the difficult and laborious position that she has assumed.

**TOBACCO SEED.**—J. M. Hunter, of Ashley, Ill., has sent us a pocket of "Trush Bud" tobacco seed, ten acres of which he intends to plant the coming season in addition to ten acres of cotton.

To grow tobacco plants it is necessary to burn a brush heap on the seed bed the last of this month or early next, according to the season, so as to have the plants early. We are promised some practical articles on the culture and curing of tobacco in this State, from an old tobacco grower.

We intend to try the plants by first sowing in the green house and then pricking out into cold frames. We can see no reason why this plan may not prove as good if not better than the old mode. Should it do so, there will be no risk of a stand early in the season.

**"EDITOR ILLINOIS FARMER:**—I wish to ask your advice relative to planting a vineyard on prairie soil. My site is high and dry with, a Southern aspect. Can I plant with a hope of success? If the soil is not suitable naturally, what manure should be used, and would trench plowing be advisable.

Please answer by letter, or if you think the inquiry a practical one, you can publish it. If so, you will do me the favor to mail me the No. of the FARMER containing it.

J. C."

The first questions are answered in the October

and January numbers. Barnyard manure is the best, but we do not apprehend it will be required. Of the culture of grapes we shall have more to say. We have no extra numbers of the FARMER here; all such applications must be made to the publishers, at Springfield. Our business is to write for the benefit of subscribers, not for those who cannot afford to pay for even an extra number. The man who would start a vineyard depending upon the gratuitous instruction of agricultural editors, will come to grief, and we therefore advise our correspondent to obtain a copy of Bright or Phinn on the grape, and to subscribe for THE ILLINOIS FARMER. In so doing he will put money in his pocket and sleep all the better o' nights.

**THE WISCONSIN CHIEF.**—This valuable and staunch temperance journal is again on our table fresh and spicy as of old. We notice that our friend B., has not been idle in the meantime, but has improved the interum from editorial duties in horticulture. The *Chief* is again on our exchange list. Address Fort Atkinson, Wis. \$1.00.

**NEW OFFER.**—The publishers desire us to say that to those who make up clubs of twenty they will send an extra copy. They also want a general travelling agent to extend the circulation of the FARMER. To such a person they will give great inducements. They intend to have a club of ten or twenty at every post office in the South half of the State, and to this end they would call the attention of all postmasters to their terms. You need not make up all of a club at once, but can send on as you get the subscribers. A large share of the postmasters have the franking privilege when they undertake the business for themselves, and can thus increase the business at their office and benefit the the cause of agriculture. Will not our friends make a pull altogether and double the circulation of the FARMER within the next thirty days?

**THE WEATHER.**—The month of January, up to this writing (21st) has been of the mild and muddy kind. The roads are in the worst possible condition. Sixteen above zero is the lowest point thus far at this place.

**AGENTS WANTED.**—Agents are wanted in every school district in the State to obtain subscribers for the ILLINOIS FARMER.

We also want one or two traveling agents to canvass the State, to whom first rate inducements will be given. It is our intention to largely increase the circulation of the paper, especially in the Central and South part of the State. It is edited by one of the best agricultural writers of

the northwest, and we feel disposed to give the farmers of our State the benefit of his experience and ability. Address Bailhache & Baker, Springfield, Ill.

GEN. SCOTT.—Gen. Scott's health is said to be fast failing him now. He is confined to his apartment in the Fifth Avenue Hotel, almost entirely helpless, and, what is worse, it is said that his mind is at length breaking down under the weight of years, and mental and bodily trouble. He receives few visitors, and these only his most intimate friends.

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NIAGARA NURSERIES,

Lockport, New York.

The Largest and Cheapest Stock of  
Fruit and Ornamental Trees,  
West of Rochester.

200,000

Apple Trees, five to eight feet high, eight dollars per 100.

50,000

Standard Pear Trees, five to seven feet high, \$25 per 100.

20,000

Dwarf Pear Trees, three to five feet high, \$18 per 100.

Also a complete assortment of

CHERRY TREES, PEACH TREES,

White Grape and Cherry Currants.

All of the new varieties of

NATIVE GRAPE VINES,

ORNAMENTAL TREES,

Shrubs, &c., &c., &c.

Wholesale and retail catalogues sent to all applicants who inclose a stamp to prepay postage.

A correspondence is solicited.

Address,

E. M. MOODY & SON,

Lockport, New York.

February 1, 1863. 2m.

## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.


**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER.

Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

## Advertisements.

BABCOCK & BROTHER,  
**ST. CLAIR NURSERIES**

SUMMERFIELD, ILLINOIS.

Twenty-five miles from St. Louis, on the O. & M. R. R.

Have on hand and offer for sale the coming spring a large and well selected stock of trees of very superior growth, which they offer for sale to the trade or planters, at low rates for cash. We offer Apples, Cherries, Currants, Pears, Apricots, Gooseberries, Plums, Grapes, Strawberries, etc. 80,000 Peaches of the most popular market sorts, at \$75 per 1000, \$10 per 100. We offer a choice collection of ornamental stock shrubs, roses, plums, etc., etc. Correspondence and inspection of stock solicited.

Feb'63-3m.



# The Illinois Farmer,

A MONTHLY JOURNAL OF

## AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

**TERMS IN ADVANCE.**—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside. The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign Illinois.

All business letters are to be directed to the publishers, Springfield.

### TERMS OF ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	8	\$20	\$35	\$50
Half a page or one ".....	5	12	20	35
One fourth page or half column..	3	7	12	18
One eighth or one fourth ".....	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00
Ten cents a line for less than a square each insertion.				

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

We have put the price of advertising within reach of all. It will enable those who like to freely advertise their goods, to do so at a cheap rate.

Terms, cash. Yearly advertisers will pay semi-annually, and all transient advertisements must be accompanied with the cash to insure insertion.

BAILHACHE & BAKER, Publishers.  
Springfield, Ills.

## THE ILLINOIS STATE JOURNAL

IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

### TERMS:

One copy one year.....	\$2 00
Three copies one year.....	5 00
Six " ".....	7 50
Ten " ".....	12 00
Twenty " ".....	20 00

Payable always in advance. Persons sending clubs of ten and upwards shall be entitled to an extra copy.

Address BAILHACHE & BAKER,  
Springfield, Illinois.

## APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
Pulaski, Oswego co., N. Y.

## A GOOD INVESTMENT.

ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

GENERAL AGRICULTURE,

STOCK RAISING,

HORTICULTURE and POMOLOGY,

And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

## LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

## FORM OF PAPER.

The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

## CONTENTS.

About five pages are devoted to General Agriculture: one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

## A NEW VOLUME

Commencing January 1st, 1863, and the present time affords the best time to form clubs for the year.

One copy one year.....\$2 00

Two copies one year.....3 00

Larger clubs furnished at liberal rates, or premiums given where clubs of six or more are sent at \$1 50 each.

Specimen copies and show bills sent to any one who desires them for examination or the purpose of raising a club.

For sale by news dealers generally.

For samples or other information concerning the paper, address

EMERY & CO., Chicago, Ill.

## GEORGE S. THOMPSON,

Late of Com. Gen.'s Office,

Attorney for U. S. Military Claims,

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House  
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Having had much experience in prosecuting claims against the United States, particular attention is given to Recruiting Bills made by officers and men of volunteer companies and regiments, for subsisting, and, collecting, organizing and transporting troops prior to muster into service: Back Pay due Resigned Officers; Back Pay due Discharged Soldiers; Pay due Deceased Officers, their Widows or Heirs; Bounty and Pay due Heirs of Deceased Soldiers; Pensions due Deceased Soldiers' Widows and Minor Heirs; Pensions due Invalid Soldiers; Pay for Horses lost, killed or died in the United States' service; All Claims growing out of the Present War.

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August, 1862.tf

## EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5,00

NORWAY SPRUCE, three years  
old, six to nine inches, \$8,00

SCORCH PINE, two years old,  
three to five inches, \$7,00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARKITZ, &c., &c.,  
of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the  
best varieties for the West.

A large stock of RED DUTCH CURRANTS, the  
best for market, two to three years old, at half the  
usual rates.

STANDARD AND DWARF PEARS, of well  
tested varieties, together with a good assortment of  
Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
WAUKEGAN, ILL.

ROBT. DOUGLAS.  
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## CLOSING OUT SALE

OF THE

## FRANKLIN GROVE NURSERY,

LEE COUNTY, ILLINOIS.

A. R. WHITNEY, PROPRIETOR.

300,000 Apple Trees for Sale.

ESTABLISHED IN 1843.

The subscriber has now in orchard 18,000 Apple  
Trees, 11,000 were in bearing the past season. The  
great amount of care now necessary to give this large  
orchard compels me to close out my large.

## Nursery Stock of Apple Trees,

Which are of kinds which have proved valuable, and  
hardy, in Northern and Central Illinois.

I will sell good selected four and five year old  
Apple Trees, from 3 to 12 dollars per hundred.

Three year old trees from 3 to 5 dollars per hun-  
dred.

Seedlings 2 to 7 years 2½ to 4 dollars per hundred.

Seedlings three years in seed bed, 5 dollars per  
1,000, just the tree to set a border around your or-  
chards. To purchasers of large quantities,

## EXTRA INDUCEMENTS

will be offered.

## ORNAMENTAL TREES AND SHRUBS

in like proportion as to price.

Full descriptive catalogue furnished gratis.

Trees and plants packed in the best manner.  
Charge, cost of material for packing. Trees and  
fruits delivered at the railroad station free of charge.

All letters of inquiry will be promptly answered.

Address,

A. R. WHITNEY,

Franklin Grove,  
Illinois.

February 1, 1863. 3m

GENUINE

## WHITE WILLOW CUTTINGS!!

AT

\$2 PER 1,000.

Put up in boxes and delivered on railroad without extra charge. Also,

## First Premium App'e Trees

of any desired size or form, at ten dollars per hundred, or eighty dollars per 1,000, with cost of packing material added.

Other varieties of fruit and ornamental trees and plants

## AT LOWEST LIVING RATES

Orders for Willows should be sent early.

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## BLOOMINGTON NURSERY.

BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees

200 NAMED SORTS TULIPS, ALSO HYACINTHS Crocus, and a general assortment of Bulbs and Flower Roots for Fall and Spring planting. Nursery stock, Evergreens, Greenhouse and garden plants—all at wholesale and retail at lowest cash rates.

For particulars see Catalogues or address subscriber F. K. PHOENIX.

Bloomington, Ill., Aug. 1, 1862.

## 100,000 RED CEDAR SEEDLINGS

FOR SALE,

Four to twelve inches high, Five Dollars per 1,000. One to Three feet, Ten for One Dollar, carefully packed, and delivered at the depot.

J. A. CARPENTER.

SOUTH PASS, ILL., Jan. 1, 1863.  
1sq1m

# HOVEY'S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

Novt1862 A. H. HOVEY,  
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CHOICE LOW HEAD

## APPLE TREES

I offer to deliver on R. R. my First Premium Apple Trees, of any desired size or form, at \$10 per hundred, or \$80 per thousand (cost of packing material added. Also,

PEARS,

PLUMS,

CHERRIES,

PEACHES,

GRAPES,

CURRANTS,

GOOSEBERRIES,

RASPBERRIES,

STRAWBERRIES, &amp;c.

Evergreen and Deciduous Ornamental Trees, Shrubs, Vines, and hardy plants of best varieties.

ALL AT THE LOWEST LIVING RATES.

Correspondence solicited.

O. B. GALUSHA.

LISBON, KENDALL CO. ILL., JAN. 1, 1863.

3m.



FAIRBANKS'

STANDARD

S C A L E S

OF ALL KINDS.

Also, Warehouse Trucks, Letter Presses, &amp;c.

FAIRBANKS, GREENLEAF &amp; CO.

172 LAKE STREET, CHICAGO,

Sold in Springfield by

E. E. PEASE.

Be careful and buy only the genuine.

June 1-ly

## TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD, \$55 per 1,000.

A few thousand of bearing age, of large size at  
\$75 per 1,000.

These will produce a good crop the second year.

HARTFORD PROLIFIC, \$10 per 1,00, or  
ten for a dollar.

REBECCA, \$10 per 100.

DIANA, \$10 per 100.

The above will be well packed,  
to go any distance.

TERMS—Cash, or approved bank paper of  
short date.

JAMES SMITH.

DES MOINES IOWA, Jan. 1, 1863.

3m.

# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., MARCH, 1863.

NO. 3.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

✍ EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\*\* For terms see prospectus and special notices in advertising department.

### March.

The farmer is fairly afield this month; fences are being looked after, old ones repaired and new ones built. The spring wheat must be sown this month. The best rule is to sow as soon after the first of the month as the ground will permit. Do not be afraid of the mud, as the subsequent frosts will make the soil friable. Clover and other grass seed should be sown now.

As the sugar and syrup crop is to be one of large importance, select dry ground for it, and be ready to plant early. Imphee is the best for sugar and the molasses from it can be sent to the city and refined, but for syrup alone, the sorghum is the best. This is ac-

cording to our present experience.

We think there is no risk in making sugar from the Imphee. We look upon the Atalieite and Com-see-a-na, as identical. J. H. Smith of Quincy has the latter, and several parties at Rushville, Ill., the former. We have before given the mode of planting, and shall give instruction in regard to sugar making from the most skillful in that line.

Should the soil be in condition, manures should be hauled out this month.

The last of this month the cuttings of white willow should be put out, as the willow is among the first trees to put out leaves.

Gardeners will now prick out tomato, cabbage and other plants into cold frames, and if the weather is favorable early cabbage can be set in the open ground if well protected from high winds. Tobacco seed should be sown at once. Burn a brush heap on the the bed, rake it fine three or four inches deep the same day, and while the ground is warm from the burning brush, and sow at once—rake in lightly, and tramp or roll hard, as the surface must be well packed. Put a good pile of brush on the bed, say two to four feet deep to protect the plants from frost.

The best place for the bed is in the timber land, but good plants can be grown in the prairie. Corn stalks can be used with which to burn over the

bed, though our gardener succeeds well without this burning of the soil and we would not be at much expense in regard to it.

This month you will plant onions, lettuce, pears, chickory and parsnips.

Do not sow any foul seed on any pretence whatever.

Labor is scarce and dear; you will therefore have to add brains to help out the want of labor—look carefully before you leap, is an old valuable adage, which simply means that you shall first consider how and when to apply labor to the best advantage.

Tobacco has now become a staple crop of the State. Select a site sheltered from the hoary winds or plant a belt of corn around the patch. This crop will call loudly for shelter belts. The drying houses will occupy considerable room, and must have the heavy winds broken from them. Select your site and enclose half an acre or an acre with a white willow belt.

#### Plows and Plowing—Spaders and Spading.

The modern improvement in plows dates with the patent of Jethro Wood, who substituted the cast iron for the wooden mold-board. When a boy we used one of Wood's cast iron plows, and its polished surface as it turned over the smooth furrow, will always be remembered in contrast with the old wooden mold-board "bull plow," with its single handle and unsteady gait. Among the numerous forms of the old Wood patent, we much doubt if it has been improved from the original.

On the prairies the cast iron plow will not scour in any form, even when polished, and the wooden mold-board had to be resorted to. This was at first

improved by substituting narrow strips of band iron, called straps: hence the name strap plow. But few of these are now to be seen, as the steel mold-board drove them out of use. The first plow that would scour in prairie soil, made in Chicago, if not in the State, was of sheet iron from the shop of Gates & Schofield. That occurred in the Autumn of 1842. About that time the Diamond Cary plows, made by Jewett of Springfield were attracting attention. From sheet iron the mold board has gone through all the grades of boiler iron, German steel, Pittsburgh steel, rolled cast steel, and now cast steel cast in iron molds.

The mode of plowing has kept even pace with the improvement of the plow, and now bears a wide difference to the hog-rooting work of the old strap plow of the pioneer. Subsoiling and trench plowing have become incorporated into the system of thorough culture. The large breaking plows have given place to those of smaller size, and the five and seven yoke teams have yielded to the two yoke, or three horse teams to turn over the prairie sward.

#### CAN THE PLOW BE FURTHER IMPROVED?

When the cast steel mold-board was produced, it was hailed as the limit of progress in that direction. The form of the Moline and other clipper cast-steel plows would appear to be incapable of further improvement, and we may well conclude that no further effort in that regard would be of value. That cast-steel is the best material for the mold-board and land side may also be conceded, having then the material and form as perfect as possible, our next attention is to the economy of material to thicken the wearing parts, so as not



to add materially to the weight; this is accomplished in the plows made of cast steel, cast in iron molds. This completes the third proposition, and we have but the fourth left; that is to relieve the bottom of the plow of friction, to make it a wagon instead of a sled—a rolling instead of a sliding implement. Though many attempts have been made in this direction, none have proved satisfactory. Some of these wheel or sulkey appliances work very well, but the cost puts them without the pale of economy, and we must wait for something more cheap and practicable to accomplish the desired end.

The plows and plowing of to-day, in contrast with that of forty years ago, is a wonderful progress in the field of genius.

#### SPADING AND ROTARY SPADERS.

The use of the spade on small plats of ground, has been a favorite mode of culture, and is found to be superior to plowing under all conditions. With the spade the soil is finely comminuted and lies up loose, permitting the more perfect aeration of its particles, while the plow, in lifting or turning over the furrow, tends to pack the soil more closely, especially if in a moist condition. The use of the subsoil and trench plows have to some extent corrected these evils, but have not fully eradicated them. Cultivators knowing these facts, have in some instances adopted the use of the spade in gardening and vineyard culture, but the additional expense has more than overbalanced the increased value of the products, and hence has to a great extent been abandoned, and subsoil and trench plowing, when admissible, substituted therefor.

Notwithstanding all this, the idea of spading, instead of plowing the soil is

a favorite one, and many attempts have been made to accomplish it with horse power, while thousands of dollars have been thrown away on the project. skavering knives, rotary forks, spiked rollers and scarifiers all have had their day, and become matters of history.

When a thing is needed genius will not be balked by a dozen failures, nor until every possible effort shall have been expended that would tend to its success.

After all this labor and money thrown away—after all the discouragements and disappointments, success has at last crowned the persevering efforts of genius, and to day the rotary spader, adapted to the use of horse power, stands forth a veritable fact, broad and indisputable—not a single one, but a pair of them—one to represent the East, cutting and spading twenty inches wide, but the West claimed a richer gift from the hand of genius, and she gave one modeled to her wants, with a width and proportion suited to her mellow soil—a thing of curved spades, of cams, of axles and of springs, composed of cast and wrought iron and steel—simple, strong and durable, and with which three or four horses can spade, from four to five acres a day, doing the work as thoroughly as if done by hand with the laborious spade.

This invention is just in time for the cheap culture of the new products that will soon make rich the farmers of the prairies—sorghum, tobacco and cotton; the two former everywhere, and the latter south of the 40th parallel of latitude. The close, compact soil of the great basin of Egypt will yield to its mellowing influences, and the fields shall be white with cotton, or studded with vineyards and rich orchards. A

new impetus will be given to the West, leaving the stony fields of the East at a discount.

With the opening of the Mississippi, with the cheapening of transportation to the East, giving the West the markets of the world, she must and will double her resources within the next two decades.

#### COMSTOCK'S ROTARY SPADER.

This machine is composed of iron and steel, with the exception of the seat and tongue, and weighs about seven hundred pounds. It spades a width of three feet, and eight inches deep. It will be seen that its cost will place it out of the reach of the small farmer. What the price may be we do not know, but that a machine of its weight of iron and steel cannot be a trifle at present is pretty certain, and of course can only go into the hands of large farmers.

It will not work in sward land, nor on cornstubble in the Autumn, as we have verified by trial, nor on any foul stubble land, where long tough weeds, corn-stalks or the like, that would wind about the shafts and clog them up. The land must be clean, or at least nothing more than the stubble of the small grains and in spring the roots of corn, as these will become sufficiently rotten at that time to work well. In wet land or soon after a heavy rain it will do better than the plow, for while the plow, under such a condition of the soil will pack it, and lock up its fertility, the spader will throw it up loose and it will soon become friable. Of course we do not recommend the working of land when sodden with water, but to point to the fact that it can be spaded with safety to the crop when so wet that, if plowed it would be rendered worthless.

At this time when labor is not to be had, except at ruinous rates, it will make a large saving, and tend to have the crops in the ground in season, as one man with three or four horses will spade nearly as much as three men with each a span of horses, thus saving one team and two men, and when the land is in suitable condition, doing the work much better. For the preparation of land for orchards, for vineyards, for sorghum, for tobacco, for cotton, and for all gardening purposes, it will be invaluable from its deep tillage and thorough commination of soil.

On the close compact soil of the basin of Egypt, we think it will work a revolution in the mode of culture, and the crops to be cultivated. It is well known that that soil needs deep tillage and that after a heavy rain it runs together like a mortar bed, if plowed when wet it comes up in clods, and if dry the common plow cannot penetrate it; but the spader will be able to work it when nothing could be done with the plow. In the summer when the ground is baked hard it is not probable that it would succeed.

Like all valuable improvements, we do not expect to see it flood the country at once, but work its way gradually to public favor. Of one thing we are pleased that it is not to be made a monopoly or loaded down with an enormous patent fee, but to be made and sold at the lowest price consistent with a view of a fair compensation to the genius and mechanical skill of the inventor and manufacturer.

Plows will not, in consequence, get out of date on a sudden, for they will be wanted on small farms, to turn under weed stubble, corn stalks, and for

sward land. It will be to the great farm staples what the clipper plow and the reaper was at the time of their inception, giving the west new powers of competition and cheapening the great staples of life. It is the business of the West to furnish the world with cheap food, and to do this we must have the tools to do it with. We at least have some of them, the steel clipper plow, the reaper, and the power thrasher, and now we are receiving the two-horse cultivator and the rotary spader.

#### Red Cedar Seedlings and Fine Wool.

Mr. J. A. Carpenter of South Pass, (Cobden Station) Union county, enclosing us an advertisement writes as follows: "Say, do tell the planters how to make all their evergreens grow. One of my customers says he plants them on the north side of a fence with good success; another plants in open, exposed situation, large trees, mulching heavily, and placing a barrel with the heads out around each the first season. Others plant in the shade of trees. All that is required to ensure success is a little well directed care and attention.

We suppose it is your business to keep people out of trouble. I have a small flock of South Downs, and another of Spanish Merino. In 1861 the wool was all carded for home use, but the cards were not suitable for the fine wool, hence spoiled the rolls of the Merino. This year I consigned my wool to a commission house in Chicago.

I am told that fine wool is carded near Springfield. Do you know this to be a fact? If so I wish to send my wool to them.

Nothing would add so much to the value of the hills of Union county as stocking them with fine woolled sheep,

to be pastured on clover in summer, and rye pasture in winter. In this way they will shear from six to twelve pounds."

We have received several thousand Red Cedar Seedlings of Mr. C., and succeeded in growing about two-thirds of them, which is a fair average. The past season being wet, a much larger proportion has been saved. We set them under the shade of a row of closely planted peach trees, with an arborvitæ protection four feet high to the north of them. Thus sheltered, they make a fine growth, the falling leaves mulch them, and in the following spring they are transferred to the nursery rows in the orchard, which give them a slight protection, having been three to four years set out. The red cedar will not bear too much wind, and hence is not so well adapted to bleak places as the arborvitæ. Nearly or quite all evergreens lose their symmetry when exposed to the prairie winds, but though adapted to low screens, we should never recommend their planting for outside belts. These seedling red cedars should be planted out before the buds start in the spring.

The use of old barrels may do to a certain extent, but they are not always at hand in sufficient quantity. We would much rather set the trees in a sheltered place for a year or two. Large evergreens should never be transferred from the forest to the open ground, at the same time there is no difficulty with large trees that have been two or three times transplanted in the nursery.

We know of no carding mill in the State doing custom work adapted to the pure Merino wool, and it is doubtful if any of the cloth mills of the country can card it. On one occasion

we took a Merino fleece to a woolen mill, probably the largest in the State, and where broadcloth is made, it could not be carded, and the fleece was sold to go east, they giving us an equal number of pounds of excellent stocking yarn for it.

What will the peach growers say to Mr. C.'s last proposition?—ED.

### Put Your Tools in Order—A Word of Caution.

Farmers! the winter is upon you, and spring with its busy interests will soon be pressing upon its heels. One hundred thousand able-bodied sons of Pennsylvania have either volunteered or been drafted into the army since last spring. How are you going to supply their places? We have elsewhere directed your attention to this subject. We would add a word more. The winter season with the farmer, is usually a season of leisure. Let this winter be an exception. This is no period for leisure with any one. The condition of the country will not admit of a single idle hour, and especially not with the farmer. If all other operations cease, his must go on. We must have bread and meat, and the farmer must produce them. Every acre that can be, must be tilled—the more the better; for there will be heavy demands and high prices. "But how," you ask, "are we to produce more, when our help is so largely diminished?" By preparing for it in season. Instead of spending your winter evenings in idle chat at the grocery, or at home, make every hour tell upon some spring work. Bring in that plow where you left it when you finished your fall plowing, examine it in every part, and see that all its parts are in first rate working condition, have an eye to every bolt, see that the coulter is steeled and pointed, the share sharp, and the mould board oiled to keep it from rusting. Bring in that harrow from its resting place in yonder distant fence corner, see that every tooth is sharpened and firm in its socket. Draw that mowing machine beneath a shelter, examine every nut, replace worn cog wheels with new ones, substitute new and keen blades for the worn and hacked ones; clean away the gum from the journals and boxes, and supply its place with the best lubricating oil. In a word, have every shovel, mattock, rake, hoe, fork, cultivator, corn sheller, horse-rake, sythe, cradle, wagon or cart, put in perfect order, so that when spring arrives, you will be prepared for it. You will be amazed to find how greatly attention to these little essentials will forward your spring work. Have a place for everything, and everything in its place, so that you can, at any moment, day or night, lay your hand upon any implement or tool on your farm, and be certain to find it in good working order.—*Pa. Ex.*

☞ See that each hour's feelings and thoughts and actions are pure and true; then will your life be such. The wide pasture is but separate spears of grass; the sheeted bloom of prairies but isolated flowers.

## Poetry.

### A Farmer's Wife to her Husband.

INSCRIBED TO THE MAINE VOLUNTEERS.

Don't stop a moment to think, John,  
Our country calls—then go,  
Don't fear for me or the babes, John,  
I'll care for them, you know.  
Leave the corn upon the stock, John,  
Potatoes in the hill,  
And the pumpkins on the vine, John,  
I'll gather them with a will.

Then take your gun and go, John,  
Yes, take your gun and go;  
For Ruth can drive the oxen, John,  
And I can handle the hoe.

I've heard my grandsire tell, John,  
(He fought at Bunker Hill,)  
He counted all, his life and wealth,  
His country's offering still.  
Would I shame the brave old blood, John,  
That flowed on Monmouth plain?  
No—take your gun and go, John,  
Though I never see you again.

Then take your gun and go, John,  
Yes, take your gun and go,  
For Ruth can drive the oxen, John,  
And I can handle the hoe.

The army's short of blankets, John,  
Then take this heavy pair,  
I spun and wove them when a girl,  
And worked them with great care.  
A rose in every corner, John,  
And here's my name, you see,  
On the cold ground they'll warmer feel,  
Because they're made by me.

Then take your gun and go, John,  
Yes, take your gun and go,  
For Ruth can drive the oxen, John,  
And I can handle the hoe.

And, John—if God has willed it so,  
We ne'er shall meet again,  
I'll do my best for the children, John,  
In sorrow, want or pain,  
On winter evenings I'll teach them, John,  
All that I learned at school,  
And to love our country, keep her laws,  
Obey the Savior's rule.

Then take your gun and go, John,  
Yes, take your gun and go,  
For Ruth can drive the oxen, John,  
And I can handle the hoe.

And now, good bye to you, John,  
I cannot say—Farewell;  
We'll hope and pray for the best, John,  
His goodness none can tell;  
May his arm be round about you, John,  
To guard you night and day,  
Be our loved country's shield,  
Till war shall pass away.

Then take your gun and go, John,  
Yes, take your gun and go,  
For Ruth can drive the oxen, John,  
And I can handle the hoe.

## Correspondence.

### Wm. R. Prince on Peach Trees.

EMINENCE, ILL., Jan. 14, '63.

EDITOR ILLINOIS FARMER: I am entirely without experience in newspaper correspondence, and by no means disposed to take up the cudgel with your correspondent, Mr. R. Prince, for in such an encounter I could only hope to escape by my feebleness; but as all people err at times; I did not know but it might be probable that he had done so in an article in your December number.

"Large Early York and George the Fourth peaches are identical," says Mr. Prince. This may be true, but we have down in this section of Egypt two distinct varieties under these names. The Large Early York is the most reliable and best market peach we have, taking all things into consideration. It is hardy, early, and of fine size and appearance, and excellent flavor. The George the Fourth is later by two weeks, smaller size and not so hardy. Our varieties were originally procured from reliable Eastern nurseries, and as they have been received from different parties and always correspond, I am forced to the conclusion that though Mr. Prince may know of but the one variety under the two names, we Western fruit growers as well as Eastern tree growers, know, and cultivate and sell two sorts.

Mr. Prince also places the Early Crawford as inferior to the Bergen Yellow.

This matter of inferiority is perhaps a mere difference of taste; but, as market growers, we are compelled to cater to public demand.

The two peaches are entirely distinct in character, having no real resemblance save only in color.

The Crawford is earlier and more showy, flavor spicy, acid and very juicy.

Bergen's Yellow later and of a peculiar flavor, unlike any other, much less juicy than the Crawford. I should, however, state that the Crawford is one of the tender varieties, while the Bergen Yellow is ranked among the hardy sorts. Few, very few would give the palm of excellence to the Bergen Yellow, over the Crawford.

It will be remembered however, that I am speaking only for these fruits as grown out West in "Egypt."

I very much doubt our Western grown peaches being recognized by our Eastern friends.

Excuse this, and do not let it crowd out other more valuable matter from your journal.

J. E. S.

[We leave this subject to the contending parties, both of whom are well posted in their respective sections.—Ed.]

### White Willow.

FLUSHING, Feb. 21, '63.

M. L. DUNLAP, SIR: I notice a discussion as to the correct name of the Willow you are now planting so extensively in Illinois. It is the *SALIX ALBA* OR WHITE WILLOW of Europe, often called in England, the Huntington or Lincolnshire Willow. It there attains to the height of 45 to 55 feet. Sixty years ago there stood a tree of this species on high ground near one of the entrances to the grounds of my grandfather, William Prince, which was then fully 50 feet in height, and 1½ feet in diameter. In all the earlier catalogues, it was called Upright Green Willow to distinguish it from the Weeping Green and the Upright Golden Willow. There also was at that period and until about twelve years since, a row of equally lofty trees of this species on my grandfather's grounds, located along Flushing Bay, in a position where the highest tides flowed above them, showing thereby that an occasional flooding with salt water would not injure them. I have often seen the Upright Golden Willow flourishing in similar positions. The *Salix Alba* forming a beautiful branching tree terminating in a tapering head, which has caused it to receive the appellation in Europe of "Swallow-tailed Willow." It is exceedingly robust and hardy and of very vigorous growth. It is planted by the road sides in Sweden, Denmark, some parts of Germany, in Southern Russia and in portions of France and Italy, and in these positions, the trees are treated as pollards, the head being cut off and the shoots which spring up from the base being cut every second or third year to be used for fuel, poles, &c. As a timber tree it yields a great bulk in a short time, and although it succeeds in a dry soil better than most other Willows, it will produce more growth where the soil is retentive of moisture. The wood is light and tender, but of a finer grain than Poplars possess. The cause of this tree succeeding so well in Illinois, where so many others perish, is to be solely attributed to the fact that your soil so retentive of moisture, suits it well and as it strikes its main roots very quickly far deeper than the points to which the soil becomes frozen during winter, the principal roots from which the tree derives its maximum of nutriment, are never affected or in any material degree injured. I greatly desire that some of our Californian adventurers who may traverse Mexico when going here, or on their return as I did, would bring home scions of the most beautiful Spiral Willows which border many of the mighty avenues leading from that city to the adjacent villages. It is unlike all others which I have ever seen, and every observer would at a short distance declare them to be Lom-



bardy Poplars. They were probably introduced there from Spain. I brought home some scions, but it being during the heat of summer, they perished. In California, the river Sacramento is for more than one hundred miles bordered with two beautiful species of Willow, and a lofty species of Poplar also grows along its bank in the vicinity of Sacramento city. I succeeded in introducing the Willows and a beautiful Plantain tree, which I have here in a flourishing state, but not so with the Poplar.

Yours fraternally,

WM. R. PRINCE.

P. S. Your soil will do well for all the species of Osier. There seems to exist great ignorance in regard to the relative characters of the various species. I can give you a chapter on the subject, if desired, and it is a misfortune that some plantations are made of such as will yield but small returns. I imported, ten years since, one hundred and ten species and varieties of Osiers, cultivated as such in different parts of Europe, and they are all growing on the farm of a friend on this Island. I selected thirty-eight therefrom which I have now reduced to fifteen species as the very best of which scions can be furnished in any quantity.

W. R. P.

[Now, when the Willow Fever rages at fever heat, we supply all the information possible, and the above from the able pen of W. R. Prince will be very acceptable.—Ed.]

### List of Pears.

*M. L. Dunlap, Esq., Uampaign, Illinois :*

As I notice persons frequently apply to have assortments of Pears recommended, I herewith furnish two lists of one hundred each for the purposes as designated. Although Beurre Bosc is usually recommended, I do not, as it is of low stunted growth, and we have "Paradise d'automne" with fruit precisely similar and a healthy, vigorous tree. I see Iaminette, Long Green, Dearborn's Seedling, Summer Deyenne, and many others recommended that are not at all comparable to others I have named. The assortments I now send you will be found far more satisfactory than any lists I have seen in the *Agriculturist* and other papers, for in point of fact most of the lists emanate from persons who do not possess a general knowledge of the whole family of Pears, and they simply advise as far as their limited knowledge extends. It is very eligible to propagate a portion of each kind of Pear in our Nurseries on the *Cratagus Cordata*, a very vigorous American thorn that attains a height in its wild State of 25 to 30 feet, and Pears budded on it form fine medium sized standards of about the same height. They produce fine crops

of fruit much sooner than other standards, and are of quite sufficient size for all useful purposes. They fill the same middle position between standards and dwarfs that the *Doncin Stock* does for Apples, and the *Mahalet stock* for Cherries.

Yours fraternally,

WM. R. PRINCE.

### FOR ORCHARD MARKET CULTURE.

- 4 Beurre Giffard, one of the very best early.
- 6 Moore's Mound, for the largest and most important of all the early varieties.
- 3 Jargonelle.
- 3 Osband's Summer.
- 8 Bartlett, on Pear or Thorn, not on Quince.
- 6 Louise Bonne of Jersey.
- 3 Beurre Superfin.
- 6 Flemish Beauty.
- 4 Beurre d'Anjou.
- 4 Belle Lucrative.
- 4 Beurre Clairgeau.
- 4 Doyenne Boussock.
- 3 Urbaniste.
- 3 Buffum.
- 4 Beurre Diel.
- 4 Bergan, extra.
- 4 Sheldon.
- 4 Duchesse d'Angouleme.
- 4 Prince's St. German.
- 6 Vicar of Winkfield.
- 5 Doyenne d'Alencon.
- 6 Lawrence.

### FOR AMATEURS.

- 2 Madeleine.
- 4 Beurre Giffard.
- 2 Jargonelle.
- 3 Osband's Summer.
- 3 Rhenish Colmar, same flavor as Seckel.
- 3 Moore's Pound.
- 3 Ott.
- 4 Bartlett.
- 4 Doyenne Boussock.
- 3 Urbaniste.
- 3 Buffum.
- 6 Paradise d'Antomme.
- 4 Louise Bonner of Jersey.
- 4 Beurre Diel.
- 4 Hegeman.
- 4 Beurre Superfine.
- 4 Flemish Beauty.
- 4 Beurre d'Anjou.
- 4 Belle Lucrative.
- 4 Bergen.
- 4 Seckel.
- 6 Sheldon.
- 4 Winter Nelis.
- 4 Doyenne d'Alencon.
- 4 Prince's St. Germain.
- 6 Lawrence.

### Stabling for Cattle.

*Editor Illinois Farmer, Champaign Illinois :*

Of course it is important to stable cattle. Nevertheless few do so. Some neglect it even when they have shelter; but the most because they have no shelter. One of the worst effects of being brought up on a farm poorly managed is the acquiring of early habits of slovenly farming. Few men will improve unless they see things better than they have themselves. It is a bad thing, too, for a farmer to commence for himself by not having means to make his family and stock comfortable, for he gets in a habit of getting along "somehow," and as he grows wealthy he does not feel the importance of having comforts and conveniences when he has so long got along without them.

Should our State have the good fortune to accept the government endowment, by which an Agricultural College will be established, an immense change for the better will result in very many respects—for there will be model farms which many will visit, and the ideas they will suggest and disseminate through the farming country, will revolutionize, in a great degree, not only the appearance but the condition of our farms. Such an institution will, among other things, show the advantages of stabling stock. But while farmers are waiting for "the good time coming" the cattle are standing in the snow and rain, and many can improve their spare hours by making temporary stables. The majority of farmers are too poor to build costly stables—then let them build cheap ones.

Oak posts eight or ten feet long may be set in holes dug in the ground. Then plates and rafters of poles may be procured; and for shingles, one may use 3 feet clapboards rived of oak. Such a structure cannot cost much anywhere. Rough lumber will answer for the sides; doors may be hung on wooden hinges, and a strong wooden latch is better for a barn than an iron one. Let a manger run through the length of the building, and beyond it keep the fodder or hay. The space where the cattle stand should be divided into stalls, which are best made like bars, and every animal should be tied by the horns with a rope. The advantages are these, and they are very great:

You feed each one what it should have, and it without hooking or running down another. Among cattle there is always one which drives the others, and one which all the others drive. Except the first, every one is driven by another one. What awful plunges, starts and stampedes always takes place among the cattle when they are fed in the barn yard.

Again—whatever you feed the cattle is saved.

If they don't eat it one time they will another. Throw hay to a cow on the ground, the first thing she does is to step on it. If it is muddy, she is certain to destroy much. I consider that not more than half as much feed is required to keep stock when fed in a manger, as when fed on the ground. I am not certain but a quarter as much will do as well. Hence it is easy to see that when one saves feed in the summer for the purpose of feeding it on the ground in the winter, that he takes twice as many steps, the scythe swings twice as much, the wife works twice as hard, and that twice as much meadow is required, as would be necessary if he kept his cattle stabled. In short, so far as this is concerned, it is true, that the farmer throws away half of his summer's work; and if he manages the rest of his business in the same way, he does not live more than half a life.

Somebody must milk—and we have rain in this country. A fine piece of business it is to sit on a stool, or to stand stooping, milking in the rain. A man that will suffer it has no excuse. If he is in debt he is a fool for not having made a better use of other people's money, and if he is not in debt, he ought easily to borrow, should he do so for the sole purpose of building a shelter for his stock. A cow, when stabled will give more milk and on less food than when kept out doors.

In a stable it is easy to save manure, and where manure is wanted this advantage will pay the cost of a stable every year. There is no saving manure in the winter season when the cattle run out doors. The manure saved in the winter is worth more than when saved in the summer, because much grain is fed. Solon Robinson thinks one will gain in the value of manure by feeding stock on corn meal, and I agree with him.

A man who stables his stock will get in the habit of putting his farming tools and wagons under shelter. How much he can save this way he can easily calculate when he has to buy these things ten years sooner than would have been necessary had he taken care of them.

There would seem to be reasons enough why one should have stables, but there are two in addition, one is: some will take him to be a merciful man and a gentleman, and others will certainly think he is a Christian.

N. C. M.

### The Weather and Crops.

MOUND FARM, CENTRALIA, ILL. }  
Feb. 12, 1863. }

*To the Editor of the Illinois Farmer :*

DEAR SIR—The Feb. No. of the FARMER came to hand yesterday, and I was much pleased with its contents, and look upon it as an indispensable visitor to our prairie home. And feeling the great benefit derived from its pages, I will use my best endeavors to increase the number of subscribers

here, as I am convinced I could not render to my neighbors better service in an agricultural point of view. Your various articles on the culture of cotton, sugar and tobacco, are of great importance to farmers of this portion of the State, as there doubtless will be a large breadth of ground planted the coming season. The want of a machine for ginning has heretofore deterred many from planting cotton; but as that difficulty is now being removed by the erection of cotton gins in various localities, many will now cultivate it to a considerable extent.

The winter here has been remarkably mild and wet, more so than any I have experienced during my residence in this portion of the State, twenty odd years, if my memory serves me right. Peach buds have been very much swollen since the early part of winter, and the last sudden change of the weather on the night of the 5th inst., very seriously damaged if it did not completely destroy the peach crop in this vicinity. I might accept a few hardy varieties of clings. Wheat has also been much injured, especially when not well drained; Mediterranean has been looking well until lately, but early May suffered very much in the fall from Hessian fly, but should the weather be favorable from this out, we will have an average crop.

I have some sixty odd young morello cherry trees about two inches through at the ground: can they be successfully cut off two feet from the ground and grafted with the May cherry? If so, you will please inform me.

It has been raining here for the last three or four days and still raining with but little prospect for a change.

Most respectfully yours,

A. P. CROSBY.

—We thank Mr. C. for his kind word. The South part of the State is making a large number of clubs of twenty, since the publishers give the extra copy to the getter up of those clubs.

It would be difficult to graft the cherries in question, but as they are of little value in their present condition would try them, by setting four grafts on each stock, and these not less than five inches long. The weak ones to be cut out the second year, but not before. The difficulty with these large stocks is the disproportion between the roots and the leaves. If there is one or two branches below the graft you will succeed better. In grafting cherries cut the bark with a sharp knife, not tear it by splitting—cut the bark first and split the stock afterwards. In these large stocks we do not split the wood but shield graft in the bark. We hope the peach crop is not so badly injured as anticipated.

ED.

## TOBACCO CULTURE.

### Rough Notes on the Cultivation and Management of Tobacco.

BY JAYEMAITCH.

*To the Editor of the Illinois Farmer:*

A WORD TO FARMERS IN EGYPT.

At the present fabulous prices obtained for two leading Southern productions, viz: cotton and tobacco, it most undoubtedly will become highly remunerative to farmers in Illinois, and especially in the south part of the State, to devote at least a part of their farms and energies to the cultivation of these two staples.

Before the people of the cotton and tobacco growing States committed suicide financially in bringing on themselves the present war, the prices obtained for cotton at the Southern marts, was probably on an average not more than ten cents per pound, and for tobacco from \$3 to \$7 per 100 lbs. At these prices, Illinois farmers could not compete with those of the South, but found wheat, corn, beef, pork and mutton more profitable, yet when our Southern friends exchange the plough and hoe, for the dogs and implements of war, and cotton advances from 10c to 65c. per lb., and tobacco from \$5 per 100 lbs., on an average to \$20 per 100, then it will be found that growing tobacco especially, and cotton on suitable lands will pay the farmer more for his labor than corn or wheat, and as labor will be scarce, we will have to circumscribe our notions of large farms and adopt a new motto; a few acres in tobacco and the remainder in grass, with corn enough for the use of the farm will become the order of the day.

HOW MUCH TO PLANT.

Tobacco growers usually consider that with corn and other necessary crops on the farm three acres to the hand is as much as can be cultivated in a *thorough* manner, and let no one undertake the cultivation of tobacco, expecting to grow (on the help itself system) any larger amount than can be taken care of in the best manner, and at the proper season, for with *worm eaten, unsuckered, light, unsaleable tobacco*, he will be sorely disappointed in the returns after being marketed. Yet with good culture, unyielding vigilance in keeping down suckers and worms, he may expect from one thousand to fourteen hundred lbs. per acre; which will sell at a price varying from ten to twenty-five dollars per hundred.

PREPARING BEDS FOR SEED.

This is a very important item, for on good plants and an abundance of them, in a measure, depends your success. In other words preparing the beds must be like laying the foundation for a costly

edifice, done in a thorough workmanlike manner. Tobacco growers usually burn and sow their beds in the latter part of January and first half of February, yet some with good success sow as late as first to middle of March. Commence with brush wood and any other combustible material at hand to form your beds. Select a dry rich plat of ground, —newland in timber being best—sloping to the south or east. Commence at one end piling up your brush and wood in such manner that it may burn freely continual on the full size of your bed. On this point great diversity of opinion prevails, some contending for many small beds, while others prefer larger beds, possibly beds ten steps square if well piled with combustible material will burn the ground most effectually, this being the main point. After all is ready set fire to it on the proper side—the course of the wind being the guide—and burn it until all the material is well burnt. It may be well here to say, that brush well and compactly built ten or twelve feet high will be sufficient; Dig up the bed with some proper implement from three inches to six inches, according to the depth the ground is burned, pulverizing it thoroughly, make it smooth, removing all clods or other rough material, lay it off in lands three feet wide, and you are ready for

#### SOWING THE SEED.

As tobacco seed is very small, mix it with ashes or sand and sow evenly over the beds in the same manner you would cabbage seed. Sow a table spoonful, to ten feet square of ground. Tramp the beds firmly and evenly, have some fine brush ready to cover your beds, say two feet deep—beech or birch is best—for the purpose of protecting the young plants when they first come up from frost, this brush will be removed gradually, at the proper time, when all danger of frosts is past.

#### VARIETIES OF TOBACCO.

There are many different varieties of tobacco grown in different States and localities, in Connecticut, New York, Pennsylvania and Ohio. The Connecticut Seed Leaf is much esteemed and most extensively grown. It is a fine light tobacco, easily cured and much used by cigar manufacturers for wrappers, on fine cigars and always commands a good price. In the great tobacco growing States of Virginia, in part of Kentucky, Missouri and Tennessee, large and heavier kinds are grown, and although not commanding the large prices of the light varieties, yet their great difference in weight more than equals the price of the light kinds in the aggregate. Among the heavier varieties many local names no doubt exist for the same kind; in Southern Illinois a kind known as James River is much grown. In Kentucky the Big Pryor and

Little Pryor have been favorite brands; at the present time, probably, the Twist Bud is most esteemed. In a word any of the kinds if properly cured will pay. Probably the Connecticut Seed Leaf and Twist Bud will both prove profitable here, and well worthy of trial. Let me caution the reader that no good Connecticut Seed Leaf seed is grown at the West; the Ohio growers invariably send to New York city for their seed *every year*.

#### PREPARING LAND FOR TOBACCO.

I would here remind the reader that old ground will need much more thorough preparation than new ground, the land should be moderately rich by nature, or with the help of manures. If manures are used they should be well rotted; the ground should be broken up by two good plowings, well harrowed and laid off one way three feet or more apart; the smaller kinds may be planted two feet apart in the row; the larger kinds three feet and a half apart.

#### PLANTING.

Now comes a rather tedious job, and all who have set out cabbage plants by the acre will readily understand why. Select damp, rainy weather for setting out plants, then with a dibble or other implement, proceed to set out in same manner as cabbage plants. Only take up as many plants as can be set without wilting. The time for setting will vary from the first of May to first of July, according to latitude and season. The first set out will be ready for cutting and curing sooner than the last setting an important item in the labor of cutting.

#### CULTIVATING.

After your field or plot is all planted the same care in keeping down weeds and the ground loose and in a friable condition will be required as for other hoed crops. Tobacco starts to grow rather slowly, but when it does get a good start it grows very rapidly, needs considerable hoeing and may be hilled up moderately.

#### PRIMING AND TOPPING.

Priming is to speak plainly, taking off the first two to four leaves at the bottom or base of the plant, and on no account must be neglected. Topping is pinching out the top bud or stem of the plant, and also is very important to be done at the proper season. Generally we pinch out the top bud when we can have from eight to twelve leaves, after priming, say ten leaves, the remaining ten leaves will now grow very fast, and will soon attain full size.

#### SUCKERING.

This is a very troublesome part of the labor at this season. Keeping down the suckers that will

want to grow from every bed at the base of the leaves. Tobacco, like all other plants striving hard to re-produce seed, in a mud they must not neglected, as these suckers will, or would soon ruin your whole prospect for filling either your pockets or your tobacco barns.

#### WORMING.

This is simply from the time the plants begin to be infected with worms, looking carefully over the plot in tobacco, plant by plant, leaf by leaf, every day—best early in the morning—destroying every worm and every nest of eggs is the only safeguard to prevent their ravages. Carelessness in this matter, for even one or two days, may cost you half your tobacco crop. Almost every one at all acquainted with agriculture knows what a tobacco worm is, from having seen their ravages on the tomato of our gardens. They grow in a day or two from a mere nothing to a size almost incredible, say as large as your forefinger, and in some-time will eat fifty times their own weight in tobacco. Young turkeys, with a little training, will assist in destroying them. Keep an old hen with her brood shut up through an afternoon and night. Early in the morning take her and brood to the tobacco patch; they will soon learn to take row by row, and are as sharp eyed in looking for worms as any hand you would pay twenty dollars a month to.

#### CUTTING AND CURING.

We will suppose the crop ready for the knife by its slightly changing color, and firmness of leaf when taken in hand. This is the most difficult part of the story, many things being hard to explain on paper, and in detail would fill a volume. Have your sticks ready, four feet two inches long. The heavier sorts are always cut up stock and all; cut with your knife down through the center of the stalk to within a few inches of the bottom. When cut off it is often scaffolded in the field, to wilt before being hauled to the barn. Care must be used that it does not get sun scalded. The light kinds are usually stripped in the field and hauled to the sheds or barns. A sled and two horses are best for hauling to prevent being bruised. Some only take off the lower half of the leaves first. This kind is strung on strong twine, using the same kind of sticks as the first—say four feet two inches long and one inch thick, a triangular shape being best—to one end tie your twine, cutting it off five to six inches longer than your stick; thread the other end and string your leaves three or four at a time; when full tie the string to the other end of the stick. The needle should pass through the stem of the leaves about one inch from the end; it is now ready to hang in the sheds or barns. Sometimes when the weather is dry and

sun not too hot, they are scaffolded in the open air for a few days. This sort is generally air cured in open barns. But the heavier kinds are, being wilted, put into tight barns and best cured by fire heat. Barns may be of any size from 16x18 to 28x100—always remembering that joists four feet apart must be placed, say first tier six feet from ground, and at every succeeding four feet upward, Barns are built to take in five and six tiers of tobacco, from twenty to twenty-four feet high to the roof. Log barns, chinked and plastered with mud, are much used for fire curing tobacco. They are generally shedded all around. When the tobacco is first hung, and afterwards moved into the tight barns to be fired. Great care must be used in firing tobacco, as many houses have been burned just by a leaf of tobacco falling into the fire. I have an idea that brick flues, such as are used in warming green houses would answer for curing tobacco, and as the furnace can be outside, would be entirely safe from accidents.

#### STRIPPING.

After the tobacco is cured the next move will be to strip, put into hands; this can only be done when in case, or in other words, during damp weather, when it can be handled without breaking the leaves. Leaves enough are put together to form a hand that will be one and a half inches in diameter at the stem end, and wrapped one-fourth of an inch from the end. These hands are then hung up to qualify which will usually require say three weeks. As soon as it comes in case take down and bulk, when it is ready for packing. I should have said that great care is necessary to keep each grade or quality by itself in tying the hands, many cultivators making five or six grades or qualities. But as most Illinois tobacco will be sold to middle men to prize and pack, I leave this part of the subject unnoticed, as this article has already taken more space than when first intended. I will merely mention that in most localities men can be found who understand tobacco in all its different stages. Such men should be consulted by those not experienced. My object being more to call attention to a great source of profit than to produce a guide for the grower. That the experienced tobacco grower will find anything new in this article I disclaim. Many details are unavoidably omitted, as my own time and the space our friend, the Editor, can spare in his valuable journal admonish me to leave unnoticed many items which would make the notes more satisfactory to me, and more plain to the novice in tobacco growing.

In conclusion I would say, hardly any two tobacco growers agree in its culture.

ASHLEY, ILL., Jan. 25, 1863.



## Horticulture.

### Proceedings of the Missouri State Horticultural Society.

EDITOR ILLINOIS FARMER:—Believing that many of your readers will be interested with the sayings and doings of the horticultural fraternity in our sister State, I send you a synopsis of the proceedings, corrected from the columns of the *Missouri Democrat*, for which it was originally furnished.

This Society, organized at Jefferson City, on the 5th of January, 1859, held its 5th annual meeting at the Court House in St. Louis, on the 13th, 14th, 15th and 16th January, 1863. The attendance was larger than ever before, and the ability of the delegates of a higher grade than ordinary. Dr. Warder, of Cincinnati, the great pomologist of the Mississippi Valley, was in attendance and Rev. Mr. Knox, "the Strawberry King," of Pittsburg. The press was well represented in the persons of N. J. Coleman, of the *Valley Farmer*; C. D. Bragdon, of the *Rural New Yorker*, and W. W. Corbett of the *Prairie Farmer*.

The increasing importance of the horticultural products of the country, which have gone up from 221,249 gallons of wine in 1850 to 1,860,008 in 1860, and from \$7,723,186 worth of orchard products in 1849 to \$19,759,361 worth in 1860, renders the encouragement of the public prints unnecessary perhaps, but of much more general interest than in years past. We shall, therefore, report the more important things said and done in this Convention, and especially the fruit discussions, commencing with—

#### APPLES.

Upon this subject an essay was read by W. C. Flagg, of Moro, Madison county, Illinois, followed by a discussion of the varieties of apples in their order of ripening, suitable for a market orchard in this vicinity. The following varieties were recommended for profit:

- 1 Early Harvest.
- 2 Carolina Red June.
- 3 Red Astrachan.
- 4 Hightop Sweet, (Sweet June.)
- 5 Maiden's Blush.
- 6 Fall Queen.
- 7 Rambo.
- 8 Wine (Pennsylvania Red Streak.)
- 9 Fallwater.
- 10 Rome Beauty.
- 11 Pryor's Red.
- 12 Newton Pippin.
- 13 New York Pippin (Baltimore Red.)
- 14 Smith's Cider.
- 15 Winesap.
- 16 Raule's Jannet.
- 17 Willow Twig.
- 18 Gilpin (Small Romanite.)

For taste the following were added:

- 1 Kirkbridge White (White June.)
- 2 American Summer Pearmain.
- 3 Large Yellow Bough (Sweet Bough.)
- 4 Newtown Spitzenberg.
- 5 Yellow Bellflower.
- 6 Jonathan.

*Early Harvest*.—N. J. Colman (St. Louis) considered this the most profitable early variety. F. A. Quinette, (St. Louis,) found it a poor bearer and not good for shipping. The Red June with him was a more profitable variety. He had planted large orchards of each, and found that though the Red June sold at two dollars per barrel, it would bring more money from its greater productiveness than the Early Harvest at two dollars fifty per barrel. L. D. Votau (of Eureka, St. Louis county,) had planted orchards of each in 1849, and the Red June had proved much the more profitable.

*Carolina Red June*.—H. T. Mudd (St. Louis) found it scabby and unsaleable. Mr. Quinette said this disfiguration had only appeared within the last two or three years. N. J. Colman found a great many of the apples small and specked.

*Red Astrachan*.—N. J. Colman said this had been cultivated under another name (Deterding's Early Red,) in this region with great profit. The objection to it was its irregular ripening. Dr. Claggett (St. Louis) doubted the identity of the two apples, which was further discussed by W. C. Flagg. Isaac Snedeker (Jerseyville, Ill.) and J. A. Pettingill, (Bunker Hill, Ill.,) all of whom mentioned differences in color of bark, and fruit, time of ripening, &c. Both were pronounced desirable market apples.

*Hightop Sweet* (Sweet June).—F. A. Quinette said this succeeded the last mentioned. A good apple for baking, and one of the most profitable of its season. Dr. C. W. Spaulding (St. Louis) said it ripened with the Red Astrachan, and was one of the finest cooking and baking apples of its season. Mr. Mudd said it was a good grower and excellent apple in Central Illinois.

*Large Yellow Bough*.—Too poor a bearer for profit: an excellent table apple.

*Golden Sweet*.—Redfield (St. Louis county)—productive, early and bears well. Little demand for sweet apples, said Colman. Quinette would plant but few varieties for profit; for 500 trees, would plant five varieties: Early Harvest, Red June, Red Astrachan, Hightop Sweet, and Sweet Bough (an apple he has under that name.)

*Keswick Codlin*.—Muir (Melrose, St. Louis county) has fruited it; an upright but not close-headed tree; fruit uniform; carries well; good for market. Jonathan Huggins (Woodburn, Ill.) has fruited it the past year, and finds it large, regular and handsome. Mr. Bayles (Carondelet) has seen one on the Sigerson farm which has been in bearing fifteen years, and has never had more than a peck on it.

*Early Strawberry*.—Geo. Husmann, (Hermann, Mo.,) says it bears abundantly odd years, and some every year; of fine color; does not hang on the tree well, so much eaten by birds. Flagg has trees twenty years old: a very strong, upright grower; abundant bearer; drops its fruit; must be picked early. Warder—Not very good for cooking, and rather small, but has made a good deal of money in the Cincinnati market.

*Sine-gua-non*.—Husmann considers it the best of its season. Vigorous trees; bears every other year abundantly; fruit is not of good color.

*Kirkbridge White*.—Flagg has found it a hardy tree, productive and valuable for market.

*Summer Queen*.—Quinette has it. Drops badly. Husmann—same experience. Is also tardy coming into bearing. Redfield—the same is the case in Northern and Western Missouri.

*American Summer Pearmain*.—Huggins what he believes to be the true fruit. Is a good market fruit, ripening near the time of Red June; a good bearer.

*Benoni*.—Dr. Warder—A small tree; very early bearer; delicious fruit; ripens early in August; an excellent market apple.

*Trenton Early*.—Colman—An excellent market fruit in Northern Illinois.

*Gravenstein*.—N. J. Colman considers it best for profit and taste; season, latter part of August; large, showy, and an early bearer. Muir concurs. Husmann considers it a sparse bearer, and tender in the winter of 1855-6.

*Maiden's Blush*.—N. J. Colman—Early bearer; productive; showy; has a long season; good everywhere.

*Buckingham*.—Husmann—does Dr. Warder consider this and the Fall Queen, of Ohio, the same?

Dr. Warder—Nearly related. The Buckingham is larger and more ribbed. I should plant the Fall Queen. Keeps into winter.

Husmann—Fall Queen is in good eating in November and keeps till March.

*Rambo*.—Husmann, Flagg and Quinette think it not a profitable market fruit. Voteau, Rannels (of St. Louis county) and others are of contrary opinion. No question of the excellence of the fruit.

*Hubbardson's Nonesuch*.—Dr. Warder—is strong, vigorous and productive; a very delicious apple; but subject to worms, and drops badly; has to be picked and shipped green with us; may do better here.

*Wine*—(Pennsylvania Red Streak)—N. J. Colman—One of the most profitable apples we have. T. R. Allen (of Allenton, St. Louis county)—Have fruited it, thrifty, good and early bearer. Snedecker—Very large and fine. Flagg—The tree was tender in the cold winter of 1855-6; very productive and good for all purposes. Headley (of Collinsville, Ill.)—Bears too full; never fails.

*Newtown Spitzenberg*.—Husmann—None better in its season. Hardy—An early bearer; easy to pick; keeps until January. Warder—A favorite apple for table; but in many quarters drops badly. Husmann—Have had ten years' experience; it is planted all about Hermann; hangs well there. Baylis—Hangs well on Sigerson place.

*Yellow Bellflower*.—N. J. Colman—Bears poorly; drops badly. Warder—Grows first rate on the ridges. Snedecker—That is my observation. Warder—It is eight to twelve years coming into bearing; then often bears quite well.

*Fulton*.—N. J. Colman—Bears early; a good market variety. Huggins—Is first rate farther north.

*Domine*.—Huggins—Had fine specimens of it. Warder—Is much liked at Cincinnati and in Eastern Ohio; hangs well to the tree, too much so; in season from December to January.

*Fallwater*.—N. J. Colman—First rate about

here; large and showy. Warder—Coarse and of little flavor: my brother would plant, however, 500 to 1000 for market; improves in quality as tree gets older; a short-lived tree.

*Rome Beauty*.—N. J. Colman—Saw it in St. Clair county, Illinois; very showy; prolific; early bearer; not first rate. Warder—Thrifty; fine grower; very profitable.

*Pryor's Red*.—Allen had it seven or eight years on low ground; not a peek of fruit yet. Snedecker—Had it fifteen to eighteen years; does not bear well till say twelve years of age. Flagg—Always found a good bearer alternate years.

*Jonathan*.—Warder—Not so well known as it deserves; good bearer, fair size, fair apple, oblong; deep bright red with fine aroma of Esopus flavor. N. J. Colman thinks we have no better apple for market.

*Ortley*.—J. R. Woods (Alton.)—Mine badly scabbed this year. Warder—We have given it up. Redfield—A failure here.

*White Winter Pearmain*.—President—Have seen it in this county badly scabbed the last few years.

*White Pippin*.—N. J. Colman—It does well at Jefferson City; is planted in preference to Newtown; because it will succeed on prairies and bottom lands. Warder—A regular and good bearer of even-sized fruit; keeps till mid-winter, not a desert fruit.

*Michael Henry Pippin*.—N. J. Colman—It bears young, abundantly and regularly; profitable; not high flavored. Warder—A market fruit and nothing else. President—A small tree.

*Newtown Pippin*.—Snedecker has trees twenty years old; not very profitable; a good many apples have to be thrown out; is more injured by insects than other apples. Warder—The Newtown Pippins of this region have long been admired. N. J. Colman—Best I have seen came from Clinton, county, Illinois; does well on lime stone soils; has a great many enemies. Muir—No apple does better on our ridges. Huggins—Fifteen year old trees have done me no good. Woods—Too prolific with me.

*New York Pippin*.—Redfield—Rots as soon as bruised; fine size and color. Warder—Every body believes in it in Southern Illinois.

*Smith's Cider*.—Warder—Very white flesh. Colman—Early and good bearer. Beeler, (Indianapolis)—When it overbears with us it is very poor. Snedecker—Knows of no apple that will bear so much in a given time; one of the most profitable.

*Winesap and Rawle's Jannet*.—Not discussed as too well and favorably known.

*Willow Twig*.—Woods—A most beautiful weeping tree; apples much inferior on the lower limbs to those on the upper. Warder—Think it will not come into bearing under 8 years.

*Nickajack*.—Warder—Large; even in size; coarse, mean; keeps nearly as well as Willow Twig; good cooking apple. E. B. Colman—In Lower Mississippi does well.

*Gilpin*.—Passed without discussion.

The following list of sweet apples was reported by a committee:

Hightop Sweet, baking.  
Victuals and drink, baking, table.  
Bailey Sweet, baking, table.  
Fall Queen, baking, table.  
Buckingham, drying.

Broadwell, table, baking.

London Sweet Pippin, baking.

Black, table.

Swaar, table, baking.

Dr. Warder read a very interesting paper, containing the results of the experiments of a Mr. Bradshaw, of DuQuoin, Illinois, who, over thirty-five years ago, undertook the amelioration of the apple by the Van Mons method of planting the first seed of a seedling, and continuing this process with the first seed of the seedling therefrom. Mr. Bradshaw and his son have raised five generations of trees, but judging from the results given, their industry and perseverance have not been rewarded with improved varieties of fruit.

#### PEACHES.

The following list, "for profit," was made:

- 1 Troth's Early.
- 2 Large Early York.
- 3 Crawford's Early.
- 4 Bergen's Yellow.
- 5 Old Mixon Free.
- 6 President.
- 7 Newington Cling.
- 8 Magnum Bonum.
- 9 Washington Cling.
- 10 Crawford's Late.
- 11 Stump the World.
- 12 Columbia.
- 13 Kenrick's Heath.
- 14 Heath Cling.
- 15 Smock.

The following discussion was had upon this queen of orchard fruits:

Troth's Early—Hadley, Collinsville, Ill.—It ripened at Makanda, station on Illinois Central Railroad, on the 15th of July in 1861; on 14th in 1862. At Collinsville it ordinarily ripens from the 20th to the 25th. Early Tillotson, Early Purple and Serrate Early York, were a little behind it. No peach of its season surpasses it.

Pettingill's Early—Pettingill, Bunker Hill, Ill.—Is a seedling from a New Hampshire tree. Have three trees almost identical. Is a regular bearer when we have peaches, and ripens two weeks earlier than Troth's Early.

Hale's Early.—Knox, Pittsburg, Pa.—We have favorable accounts of it from Cleveland.

Warder—I have very high accounts of it from those who have it. One of the earliest.

Quinette, St. Louis—Earliest peach here is Troth's Early.

Early Tillotson.—N. J. Colman, St. Louis—Best early peach I have tried. Has not mildewed; is strong, beautiful and even in size on rich prairie soil from trees four or five years old.

Muir—Have trees seven years old. Mr. Haven has them ten; no mildew yet.

Quinette—The fruit is rather small and thin skinned.

Early Cling—Snedeker.—Have such a peach ripening at the time of the Large Early York. Of good size.

Quinette—I have a few trees; nothing extra; can't recommend it.

Morse—I am down on clings.

Quinette—Can ship clings a great distance and length of time. The curculio does not affect them so much. The Washington Cling sold best last year.

Large Early York.—Hadley—It ripens one week after and finishes one week later than Troth's Early.

Cole's Early.—Huggins, Woodburn, Ill.—Ripens before Large Early York. Hardy on the prairies.

Quinette—Too small with me, and liable to be wormy.

Pettingill—Fine with me.

Beeler, Indianapolis, Ind.—Best early peach in Indiana.

Booth, Alton, Ill.—I have a peach as large as Large Early York, and ripening just after the Serrate Early York, which I think I got as Cole's Early. A valuable peach with white flesh.

Snedeker—I have it of Mr. Hilliard, of Brighton—a full bearer and a good peach.

Beeler—Not a large peach in Indiana. Very red—ripens all at once.

Snedeker—I have that peach also, as Cole's Early Red; a different peach.

Hopper, Bunker Hill, Ill.—I have twenty trees of Hilliard. One of his most profitable peaches; very red at the stone, and a nice peach.

Huggins—I got mine of Hilliard. He has of Parsons of Flushing.

Heaver, Cincinnati, Ohio.—The Cole's early of Cincinnati is a little earlier than the Troth's in our clay soil. It is dry, not very good, nor large. Good peach for market.

Quinette—That describes my peach.

Warder—Mr. Heaver tells the story. It is very early, but not a table peach.

Crawford's Early—Quinette—Very nearly as early as Early York. Hardy tree, very productive. Fruit liable to frost.

Yellow Rarripe—Hadley—It begins with the close of Crawford's Early. A fine peach a little tender for shipping, rots a little too easy in damp seasons and in too hot weather. A fine grower.

Newington Cling—Quinette—Have cultivated and sold it for fifteen years, and every one was satisfied with it. Uniformly productive, seldom wormy, and second only in quality to Washington.

Hopper—Large, showy, superior, serrate. Young shoots mildew a little—profitable for a cling.

Quinette—It has globose glands with me.

Magnum Bonum.—Hadley—A red peach and of fair size and good flavor; carries well.

Heaver—Pronounced the best peach exhibited at Cincinnati. One of the prettiest and fairest. A good bearer.

Hadley—A sure bearer; a sound peach.

Harker's Seedling.—Hadley—Showy; carries well; a good table peach.

Stump the World—Booth—Would plant 250 or 500 of it. Have taken the premium at Chicago with it for two years. Hardy, good bearer, fine large fruit of good quality. Last year and this it ripened with the late Crawford, and bore thirteen baskets on a tree to three baskets of the other.

Red Cheek Melocoton.—Quinette—With me comes before Crawford's Late.

Warder—Favorite peach with me.

Columbia.—Quinette—The best peach yet. It withstands curculio. Fine, large.

Warder—Late, but not the latest. To my taste one of the best. Ugly as it is, if you give a man one he wants more.

A seedling from a Virginia peach called Missouri Mammoth and Virginia, was here discussed, which some thought identical with the Columbia.

Kendrick's Heath, or White Heath Free.—Hadley—A good white peach. A little tender like all white flesh peaches, but not so tender as Morris's White. A good peach for canning.

Delaware White.—Hadley—Succeeds the last, and is a better peach. Nearly as good as the Morris' White, and firmer.

La Grange.—E. B. Colman, St. Louis.—Ripens about with Heath Cling. Lasts later.

Booth—Don't think it worth cultivating. It cracks and rots. Am digging up 150 trees five years old.

Snedeker—My trees did the same way. Now they are older, do better. Good, but not first rate for profit.

Quinette—Neither this nor Ward's Late Free should go on a list.

Bergen's Yellow, Old Mixon Free, President, Crawford's Late, Washington Cling, Heath Cling and Smock were adopted without discussion.

#### PEARS.

An essay on this subject was read by Wm. Muir, which paper will be published at length in the forthcoming transactions of the Society, and will repay a careful perusal.

The following list of pears was reported by a committee:

Doyenne d'Ete; d.  
Madeleine; s.  
Tyson; d.  
Dearborn Seedling; d.  
Bartlett; s. only.  
Louise Bonne de Jersey; d.  
Des Nonnes; d.  
White Doyenne; s. or d.  
Duchesse D'Angouleme; d.  
Belle Lucrative; d.  
Seckel, s.  
Beurre d'Anjou; d.  
Flemish Beauty; s.  
Beurre Bose; s. only.  
Glout Moreau; d.  
Winter Nelis; s.  
Easter Beurre; s. or d.

Pear blight was discussed. Mr. Muir said he had seen a mechanical disturbance of the sap produce symptoms of the blight. Browsing by a calf in one instance and by a horse in another, produced such symptoms.

Dr. Long believes in not cultivating too much. Would dig a hole just large enough to put the tree in, in ground that has never been broken. A vigorous growth insures blight. The Seckel with him has not blighted, with the exception, perhaps, of a limb. The Howell is, as yet, free. He mulches pear trees with hazel brush and corn-stalks. Has tried lime around his trees, but does not find it do much good, except to the Newtown Pippin. Finds clover goods for fruit trees; it keeps the ground open. The Dr. said the Winter Nelis ripened prematurely with him. Dr. Warder said he packed his in a barrel and put it in a cool place, and they kept till now. Pettingill said last summer he had been more troubled with the blight than at any previous time. On the 25th of June there was a severe storm with thunder and lightning, and the next day the ends of many quince branches died, and the pear blight began; thought electricity might be the cause. With him the Buffum alone was entirely exempt from blight.

N. J. Colman has 400 trees in rich soil, trenched three spades deep, and has lost only three or four in six years. Would plant on rich rather than on thin soil, so as to supply more immediate nourishment to the quince stocks.

#### CHERRIES.

Early Richmond.—Hopper—Had it in bearing four years—early and sure. Blooms for some time; part will be killed and part saved in case of a late frost. Ripens from the 25th of May to the 1st of June with me. My trees are root-grafted on Mazzard seedlings.

Pettingill—Am fruiting the same variety. Think it too soft for shipping. It was the size of the common Morello or a little larger.

E. B. Colman—A very sure bearer; never fails. The only one I ever knew to succeed well in the West.

Snedeker—One of the most productive and profitable trees with me. No failures in 15 years. Ripens last of May.

Huggins—Am much in favor of it. Birds and children like it.

Common Morello.—Warder—A richer cherry than the one just adopted. Better for canning. Like it stoned with a little sugar for tea.

Belle de Choisey.—Warder—Almost a Morello. Hardy as the last.

May Duke.—Snedeker—One of the best of the sweet cherries.

Elton.—Snedeker—Like it very well.

Warder—Hardier than others of its class.

E. B. Colman—Does well in my neighborhood.

White Tartarian.—Pettingill—Have had it on Morello stock five years.

Mr. Heaver was surprised to find so few varieties known here. Said there were fifty varieties in cultivation near Cincinnati. Being requested to name some of those which had proved most successful, he gave the Early Richmond, May Duke, Elton, Reine Hortense, Gov. Wood, Yellow Spanish, Osceola, Black Hawk. He had protected cherry trees from the sun very effectually by letting all the laterals grow. A friend of his bound the trunks of his trees with straw to protect them from the winter's sun, and says it will pay.

Morse, St. Louis county—Had seen Black Tartarian doing well on the poor soil of the Meramec hills.

Muir—Black Tartarian, Elton and others do well with Mr. Harens, near me. Of thirteen varieties which he had himself planted in low grounds, only two remained.

The result of this brief discussion was the recommendation of the following list:

May Duke.

Early Richmond.

Common Morello.

The cherries recommended above by Mr. Heaver, who resides nearly in our latitude, will probably succeed well in the region of St. Louis.

[To be continued.]

#### Plant an Orchard.

When apples are \$3 a barrel and upward, there is not adequate supply in the country. They can be grown at a dollar a barrel with profit. The crop in a single small county in the State of New York, was worth half a million of dollars last year. Other counties in the Eastern States were under.



the necessity of paying out \$100,000 for this fruit, because they had not the article at home. Peaches and plums we may be able to get along without, but apples we must have—for the desert, and for the dinner basket of little boys and girls who cannot come home from school to dine, and for many other uses. We say then to every farmer plant an orchard of at least a hundred trees. The trees are all ready for you in the nursery, well grown and grafted, two or three years from the bud. Get thrifty trees, of varieties that you know will flourish in *your* locality, and in four years you will be eating fruit from them. Do not fail to plant an apple orchard this very month.—*Scientific American*.

### Raspberries.

"Of all things!"

The friend was in our cellar by invitation, of course—and taking a critical view of some cans of Brinkle's Orange, their peach-tinted sides lying up against the glass most aggravatingly, as much as to say, "Don't you wish you could get at us?"

"Brinkle's Orange, you call 'em?"

"Yes."

"How do you raise 'em?"

"Set them out; the good Lord grows them, and we pick the berries."

"Prolific?"

"Very, and a long time in bearing."

"Hardy?"

"Not entirely, we cover them winters."

"Oh! that spiles it all—I never can bother with such things."

No, he never bothers with them, and never, of course, has them. The berry—"fit for the gods"—draws on the cultivator for a little kindness during the winter, and rewards the favor—how abundantly and lusciously in the summer. Can't bother! Now, just below the house at the foot of the hill, our Brinkle's are snugly abed for the winter's rest, cozy under a light coverlid of earth and mulch. The process cost us a few hours of brisk exercise with the spade, and a few drops on the brow. For, as the Scripture hath it, "in the sweat of thy face" shalt thou eat Brinkle's Orange Raspberries. The job was a pleasure, for while we put down the canes, we conversed quietly, and thought gratefully of the goodness of Him who gave us such luxuries in their season; thought of the cans sealed and ranked in the cellar and shortcakes in mid-winter; of the reward of the coming season if spared to enjoy it, when the canes, reinvigorated by their sleep, shall nod with luscious freight and drop the melting cones into the basket by the bushel.

We have time—a few hours each season—to cover and care for the Brinkle's Orange. The investment pays. So of the strawberry, the Lawton, and the grape. Let others whine about the bother; we'll suffer that, and the punishment of having and enjoying the berries.—*Wis. Chief*.

### Luxuries of Home Production.

Mr. George Taylor, Gardner and Nurseryman, well known to all our citizens, has demonstrated the present season what may be done in the way of producing a variety of luxuries on a single acre of ground, mostly used as a garden and nursery.

We have seen occasionally that he had a few grape-vines growing, but the idea that he had a vineyard never occurred to us until a day or two since, when we had an opportunity to taste a bottle of delicious wine of his manufacture the present season, made from grapes of the Clinton variety. He informs us that he has made about twenty gallons of the same sort, and we have the authority of some of our first physicians for saying that for medicinal purposes it cannot be excelled by any foreign article.

Mr. Taylor, too, has gone a little into tobacco growing, and we have seen a dozen cigars made from a portion of his small crop, manufactured by himself, which looked equal to the best Havanas—we never test the weed by use. He has also manufactured a plug or two. This is promising for the lovers of the universal narcotic while the war puts an embargo upon it, and may be encouraging to any one who chooses to grow it as long as the manufactured article sells for a dollar a pound.

Mr. Taylor has also experimented with chickory, and we have before us a prepared sample, not unlike Rio Coffee, in looks, taste and smell. It is largely used, as most of our readers know, in the adulteration of the inferior kinds of ground coffee, and some people prefer the mixture. At all events it is much cheaper than the Arabian berry, and in these hard times may be worth cultivating. Mr. Taylor can furnish seed to those who may desire to try the experiment.

In this connection we may mention that Mr. Thomas Hodgson, a neighbor and relative of Mr. Taylor, has raised some well-developed balls of upland cotton, the fibre of which, to us, looks as well as that grown at the South. With the present huge prices of the raw and manufactured article, it may be worth while to see if it cannot be raised extensively hereabouts. We believe it can.—*Henry County Dial*

**LARGE YIELD OF CORN.**—The largest yield of corn we have heard of this season was produced by Mr. Adam Dutter, living three miles northwest of this city. Mr. D. informs us that he has raised this season, on a piece of land that he has taken a considerable trouble to manure and prepare for that purpose, one hundred and fifteen bushels per acre, measured corn, and thinks that if weighed it would overrun that amount. His corn was planted in drills, and thoroughly cultivated. This illustrates one fact that should be noted by all farmers—that Illinois land will bear manure; and if they would do this and cultivate a less number of acres, they would get larger yields, which, undoubtedly, would be more profitable, and also strengthen and invigorate the land for after crops. If there are any other farmers who have been experimenting, and can show a larger yield of corn to the acre, we would be pleased to have them report.—*Peru (Ill.) Herald*.

**ILLINOIS COTTON.**—A firm in Chicago have received a consignment of 459 pounds of cotton raised by a farmer near DuQuoin. It sold readily at Chicago at 80 cents per pound. The *Journal* says, "The cotton is just as good, perfect and marketable as any we have ever seen that was raised in the Southwest."



## Stock.

### Cooking Food for Stock—Does it Pay?

Agriculturists have their hobbies as well as other men, and ride them full as zealously, when once they are mounted; albeit they are slower—often too slow—in putting their feet into the stirrup.

Among the more modern theories which have attracted the attention of intelligent farmers, the economy of cooking food for stock has been prominent. Somewhat plausible, at first thought, it is natural that the more easily persuaded of those who are on the *qui vive* for the best methods should have readily adopted it; especially as it has, from time to time, received the endorsement of scientific men. Still, the question is not yet so fully established in the affirmative but that it may be discussed to advantage.

Men will be found who have made the experiment and are perfectly sure that they save full half of their feed by having it cooked; while others are equally sure that cooking is not the slightest advantage, if it does not indeed, damage the quality of the meat. And this diversity of opinion must continue until a series of well-ordered experiments shall have been carefully made, touching every important circumstance bearing upon the question at issue. For the present, then, we can only state the general opinion of those by whom the trial has been most fairly made, and impartially examine into the scientific principles involved.

It is agreed among physiologists that the saliva performs an important office in the process of human degestion, and the habits of all ruminating animals may be adduced as evidence that the same importance attaches to its office in the economy of the lower animals. Indeed, an examination of the food eaten by the horse will show that the woody and starchy portions have been progressed by the process of insalivation towards the gum and sugar into which they must first be transmuted before being assimilated to the bodily tissues. It would appear reasonable, therefore, that all food not thus insalivated must pass into the stomach in a condition not provided for by nature. But food which is quite dry cannot be swallowed until it is first moistened by the saliva, and it may well be argued that the slopping of food with water or steam will have the effect to supercede the action of the saliva and thus impede the work of digestion. In fact, it is just this course of reasoning which has induced physiologists to recommend that but little water, in any form, be taken with the food. Can any reason be shown why the same recommendation should not have application, in some degree, to the feeding of the lower animals?

But we are not arguing so much that the cooking of food is liable to result in deranged and partial digestion, as that the advantages of cooking are probably over-rated by those who imagine that they are very large gainers thereby. It is not enough that cooked food is not injurious: it should also be worth enough more to pay for the cost of apparatus, fuel and the extra labor involved. If it will not do this, it is clearly no gain to cook. On this point we quote the opinions of Mr. J. Burnet Lawes, and Prof. Simmonds, members of the Royal Agricultural Society of England, as expressed in

discussion at a meeting of the weekly Council, while we were in London, and subsequently reported in the Journal of the Society.

Mr. Lawes said: In this question there were two points to be considered. The first was, whether the labor and fuel expended in the cooking were not equivalent to the saving; and he thought that taking the gross increase, there was a slight saving. The second was, whether the increase in the animal fed on cooked food was as good as that produced by uncooked food. On this point he was disposed to think that the quality of the meat was inferior when the food was cooked. If pigs were always fed on boiled swedes and meal, although they might increase very fast and be very profitable to the seller, still, it would be found out by degrees that the quality of the pork was bad. The butcher would ultimately refuse to buy, and would say that such pork, to use a common expression, "boiled away." All animals as they fattened had a certain amount of water displaced; that was to say, they contained less and less water; but if they were fed with boiled swedes and meal, the water would increase, as well as the fat. Some time ago he fed one animal on steeped barley, and another on dry barley, with the view of testing the merits of the two systems of feeding. The animal which was fed on the steeped barley increased very fast, while the increase of the other was comparatively slow. They were both killed; the loins and other parts were cooked in the establishment, and it turned out that there was much more waste in the former case than in the latter. The question whether the increase from cooked food or from dry food is the most economical, was one of considerable nicety, on which at that moment they had not sufficient facts to guide their opinion; but he would not, himself, expect to find any great difference in the results. Supposing a man saved twenty pounds sterling a year by the use of cooked food, and that he spent ten pounds on labor, and ten pounds more for coals in consequence, he would in reality be a loser by the cooking, because there would be less manure. Some years ago Mr. Warne's system of cooking was very extensively adopted, but it did not seem to maintain its ground.

Prof. Simmonds said: Mr. Lawes had spoken of the watery flesh of animals fed on cooked food, and there was scarcely any limit to the quantity of water that might enter the animal organism, if we gave food which contained a large quantity of water. Speaking as a pathologist, he believed that a great number of diseases among the lower animals arose from the bad state of the blood induced by excess of water and deficiency of nitrogenized—flesh forming—matter in the food. The practical farmer knew that, if in the lambing season, he gave his ewes too many white turnips, or other green food, which had grown rapidly and contained a large amount of water, it would lead to disease and loss; whereas, if he put them on dry food, containing weight for weight, a large portion of nitrogenized matter, a good quality of blood was produced and the health of the animal preserved. Admitting that cooked food had the effect of accumulating weight, to say nothing about flesh, in a certain space of time, he was inclined to think that this arose from the facility which it gave for the digestion of food by anticipating a part of the process carried on by the action of the gastric

juice. But it was questionable policy giving to an animal, and especially a ruminant animal, cooked food, for thus they might, to a considerable extent, supercede mastication; if so, they would supercede insalivation, and thus interfere with one of the chief processes of nature. The addition of saliva was first to convert the amylaceous parts of the food, or starch, into sugar and gummy matter. A further provision was made in the ruminant animal for stirring up, if he might so express it, the food, and a chemical change took place in its character before it passed into the true digestive stomach. There was a re-mastication and a re-insalivation; and, inasmuch as the secretions coming from the rumen, first coat of the complex stomach, were very analogous to those with which the food was mixed in the mouth, it not only remained mixed with saliva a much longer time, but was mixed with a much greater quantity of that or a like substance. If, then, by the use of cooked food they dispensed with part of the operations of nature, and sent the food quicker into the intestinal canal, they would dispense with process of remastication and re-insalivation; and he could understand why, although a large increase might take place in bulk, the animal might become bad. The digestive process depends materially upon the condition of the food; it is even possible, by giving cooked food, or food which was physically in the same condition with regard to fineness and moisture, to render animals non-ruminative which are naturally ruminants; that is to say we may give them food that would be retained for a short time in the rumen, pass quickly into the true digestive stomach and become subject to the action of the true digestion without undergoing re-mastication. We would thus interfere at once with the law of nature: if we cooked food at all, we ought not before cooking to reduce it too fine. If the straw be cut into lengths of from four to six inches, a cooking process may be set up so as to convert the amylaceous parts into sugar, without interfering with the functions of the rumen; but such food would be re-masticated. Upon the whole, he was certainly not in favor of the so-called system of cooking food, either for the preservation of the health of the animal, or for the promotion of the process of digestion.

The above we cut from the Wisconsin Farmer, whose editor has recently returned from England. There where labor and coal are both cheap, and food dear, we should find cooked food popular if anywhere, but it would appear not to be so, how much less, then should it be approved here where food is cheap and labor and fuel dear. We give the article, not so much for its value to our farmers, but to answer several inquiries from our readers.—Ed.

**HOGS IN THE APPLE ORCHARD**—Nobody sends such apples to market as my neighbor, John Jacobs. He always has apples to sell and gets the highest prices. Folks prefer fair, large apples; and such are always packed in Jacob's barrels. You might search them with a candle and not find a knotty fruit or a worm hole. Such Rhode Island Greenings and Roxbury Russets I have never met with

in the old States. They are as handsome as any thing in the virgin soils of the West.

I was going by Jacob's orchard last summer, and I had the curiosity to call and examine for myself. Says I, "Neighbor, what is there in your soil that makes such smooth, large apples? They are a third bigger than anything I can get, and my trees look as well as yours."

"The secret is not in the soil," John replied, with a twinkle of his eye, "but on it. Do you see those grunthers there? My pork brings me fifty cents a pound, eight in flesh and the balance in fruit. I began to pasture my orchard ten years ago with hogs, and since that time I have had no trouble with wormy fruit. Apples, as a general thing, don't fall from the tree unless something is the matter with them. The apple-worm and curculio lay their eggs in the fruit, and the apples drop early. The pigs devour the apples, and by September every unsound apple is gone and I have nothing but fair fruit left. The crop of insects for the next year is destroyed by the pigs. They root around under the trees, keep the soil loose, manure the land some, and work over what manure I spread. The apples help the pigs, and the pigs help the apples."

I saw John's secret at once, and have profited by it. I never had so few insects as this spring, and I have given the pigs credit for it. In turning the orchard into a pasture put in pigs—not landpikes with snouts like Ievers. You might lose trees as well as insects in that case. But well bred animals, with judicious snouts, will root in a subdued and Christian-like manner.—*American Agriculturist*.

### The Horse Market.

Hitherto but little attention has been paid to breeding horses for special purposes in this country, as in England. The reason for this probably is that our American horses are used alternately for all the different kinds of work—the plow, the cart, the saddle and the road, as occasion may require, and they do each about equally well. In this country, and especially in New England, the demand seems to be for horses of all work, and while this is the case they will be bred to suit the wants of purchasers.

The Morgan horses of Vermont or New Hampshire are peculiarly adapted to supply the demand, as they are equally useful upon the farm, under the saddle, or for fast or slow driving upon the road, and do that work best that they have been most carefully trained to. They are very strong for their inches, hardy and nervous, and smart in the performance of any work put upon them, while they are of medium size, very tractable and docile. For these qualities they have become famous all over this country, and command a high and remunerative price in any market. In New England there are but very few horses that cannot be traced, on one side or the other, back to the famous Justin Morgan. They are now bred to some extent in Pennsylvania, Ohio and Virginia. Vermont especially has realized great profits from the production of these horses, and they are sent into all the Western States and California for breeding and other purposes, where they occupy an enviable position among all other breeds or families of these noble animals.

Recently the United States War Department has issued an order for the purchase in Vermont of nine or ten hundred horses for cavalry, and agents are now in that State for the purpose. This order was made after a comparison of their strength and power of endurance with that of horses purchased in other sections of the country. The hills, pastures and climate of New England are particularly adapted to the production of the breed of Morgan horses in their greatest perfection and at the most profit.

With this state of facts, together with the other fact that the demand for horses is now and probably will be for some years to come, greater than the supply, which must most surely operate to enhance their price in market, the shrewd horse breeders of New England will not be slow about taking advantage of the times, and in giving greater care and attention to this matter. With good breeding animals, and a suitable amount of care given to the business, they cannot fail to realize large profits.

Some months since we advised breeders and farmers not to part with their young horses too lightly, as they were sure to rise upon their hands. We believe that all good horses are to-day from twenty-five to thirty-five per cent. higher in price than they were six months ago, and we shall not be surprised if the next six months shall advance the price as much more. The present aspect of affairs would seem to warrant this conclusion.—*American Stock Journal*.

### The Horse and his Improvement.

Important and necessary as it is to secure the best possible condition, make, and character of both sire and dam, it is not sufficient to insure complete success. In a world where briars, weeds, and poisonous grasses grow spontaneously, and the fruits and grains which support life are grown only by laborious cultivation, incessant vigilance is the price of a good life, ample sustenance. The first conditions being settled, leaves no recess for slumbering. The mare needs constant care. She must be kept in good health and condition—must be fed with care, both as regards quantity and quality—must be sheltered from storms and bad weather—must have exercise and room for recreation, avoiding sudden, violent exertion—must be kept free from noxious gases of foul and illy-ventilated stables—should be combed and rubbed frequently, in short, everything should be done which tends to cultivate and sustain that condition of life, strength, action, and spirit, to be desired in the offspring. The forming animal derives no element of its being from other source than the mother's system. During gestation, her vital fluid fills the foetal veins; and if, from any depressing or exhausting influence that blood is deficient in vitality, it cannot supply that life and energy, that perfection of development, to the new being which a better condition would impart. Every influence affecting injuriously the mother's health, vitiates the life fountain of the new being; hence the necessity and value of the utmost care and attention during the period of gestation.

All the attention requisite before foaling, is equally important afterwards. In the one case, the foetus derives its nourishment direct from the blood of the mother; in the next, the foal obtains its

sustenance from the milk made from that blood, and it is not less important that the blood be healthy and pure to insure the proper quantity of nutriment to the young animal. For this reason the mare should not be put to hard work soon after foaling, nor, indeed, to severe and constant toil during the time of suckling her young. She should be well fed, and allowed good pasturage, affording both food and room for exercise. An idea that half starved and stunted colts make tough, hardy horses has long existed among a portion of the farming community; and so opposed is it to all facts, so contrary to all the teachings of reason and philosophy, so absurd in itself, that its very existence is astonishing. When every tissue of organization is made up from the nutriment taken into the system, and from that only, as every one knows, it is not easy to conceive how those tissues should be better formed if only half supplied with forming materials; yet such has been the idea. And though a few good animals have been raised in this manner, it needs but a moment's thought to decide that they must have been much better if well cared for, and fully fed. Observation it is thought, will convince any one that such horses are imperfectly developed, are more liable to the encroachments of disease, are wanting in action and spirit, and do not exhibit that symmetry and and heauty of form characteristic of well fed animals.

Youatt, who has written much, and scientifically upon the economy of the horse, says:

"The breeder may depend upon it, that nothing is gained by starving the mother, and stinting the foal at this time. It is the most important period of the life of the horse; and if, from false economy, his growth is arrested, his puny form and want of endurance will ever afterwards testify the error that has been committed."

There is no principle of greater importance than the liberal feeding of the foal during the time of his growth, and particularly at the time of weaning. Bruised oats and bran, or other nutritious and easily digested articles, should form a part of his daily food; and the farmer may be assured that the money is well invested which is expended on the liberal nourishment of the growing colt. With liberal range, she should have good shelter from storms and the inclemencies of the weather. Too often, however, after weaning, he is left to struggle on as he can, and becoming poor and dispirited, may be seen shivering beside a fence, rheum running from his eyes, his rough, shaggy, dirty coat a habitation for vermin, and himself a sad specimen of poverty and misery. Not a great number of of such cases may be found at this time, compared with the past; but there is far too much carelessness and inattention to young animals of all kinds. The dictates of humane feeling and the demand of the owner's purse, when understood, will remedy the evil; and reform, in these matters, as in most others, will come from a knowledge of, and reasons for the better way. The agricultural wealth not yet developed, both vegetable and animal, may some day astonish the dull eyes of the present old fogyish portion of young America.

As horses are mainly valuable for their utility to man, it is apparent that the full development of the physical system of the animal is not all that needs to be secured, though that is necessarily the primary department, upon which all else is to be based. The best developed animal might be so



vicious as to be entirely valueless: though it is a rule, that development of form and disposition correspond to each other. Yet the horse being one of the most intelligent of the animal creation, and easily trained into objectionable as well as desirable habits, it behooves every one having the care of young horses and colts, to guard carefully the influences brought to bear upon their disposition. The usual custom throughout the West is to let them run wild almost, until three or four years old, and then put them through—not a regular system of “breaking,”—but such exercises as the disposition of the master might dictate at the moment, and which often exhibited far more of the spleen and irritability, impatience, and violence of temper of the man, than of care for the horse. Almost the first experience of life the colt gets, after he has learned the use of his legs, is a pelting with small stones, clods, sticks, or switches from mischievous boys, who delight in his infantile antics to avoid his persecutors: and thus from the first, he learns to look upon man as an enemy to be dreaded and avoided, while evil disposings to kick, strike, &c., and ill nature generally, are forced upon him. Age and strength accumulate, and with them ill treatment, (for the amusement of its master it may be, or by virtue of their thoughtless disregard of causes and effects,) until, when large and old enough to become serviceable, the difficult and dangerous process of “breaking” becomes necessary. And it too often happens, that when this is well done, as all admit it should be, the horse is really broken, and has lost all that spirit and nobleness so much admired in this truly noble animal. The whole idea of “breaking” implies, in fact a necessary evil; is part of the same philosophy which once made our school-houses depositories of birch, and theaters of tragic cruelty; a philosophy which, thanks to enlightened progress, is rapidly passing away.

The colt should be accustomed to kindness, and gentle, yet firm handling, from the first, and in this manner learn perfect obedience to his master's will. The halter may, indeed should be, placed upon him when quite young, and he should learn to be guided by it in any direction, with ease; and as he grows up, one lesson after another may be added, as the owner's wishes or fancy may dictate, until, when the time comes that his services are demanded, he is ready trained for the service, educated in the way he should go, and will walk in it. The whole process should be one of careful avoidance of influences tending to create bad habits, teaching the animal what it will be required to know, before that requisition comes, and by education supersede the necessity for the unphilosophical, and often brutal “breaking.”

The advantages of careful training during growth are many and important. It affords the best possible means of developing the animal in every respect; keeps him under the constant care of the owner, and induces him to think and reason upon what he does—creates a sympathy, so to term it, between them, which elevates the character of both. It prevents the vicious habits usually engendered from carelessness of the owner, and which cannot always be eradicated, and avoids the cruelty and abuse of “breaking.” The horse may be made tractable, reliable, and safe, without having his energy and spirit crushed out of him; and he may be noble, active and proud in his movements,

without being restive, irritable and treacherous, and as a consequence, will be more easily kept in fine condition and good health. It is only a continuation of the principles of breeding, extended to the full development of the animal, here advocated: and, while all cannot be equally successful in this, as in any other of the pursuits of life, all will be more successful, and richly rewarded for their effort to attain it. The principal reasons for the general untrained character of horses, seem to be the lack of any systematic effort at training, and the uncontrolled passions of those who have the handling and care of horses. It is no uncommon thing to see angry bipeds venting their passion upon unoffending animals, as the most convenient recipient of their ire. And such scenes are not confined to the street, the highway, or the farm; but are found in all. The effects are mischievous, and ruinous to the best interests of the owner, because injuring and depreciating in value his property in the market. Horse education, really, is a marketable commodity, and may be, indeed always is, estimated in dollars and cents.—*Vet. Jour.*

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**FAIRBANK'S SCALES.**—Weighed in the balance of a just criticism, all are obliged to admit that the scales of Fairbanks & Co. are, without exception, the best ever invented. We know whereof we affirm, because we have tested their value, and are fully satisfied of their superior merits. The introduction of these scales has wrought a revolution in the transaction of various business, and their accuracy is such that a uniformity in weights has been established all over the country, thus making them a *national legalized standard*. Nor are they confined to the United States; they have found their way to almost every part of the civilized world, and are adapted to the standards of all countries, so that it may be said, all nations, if not “weighed in these balances, at least weigh by them.”—*Hunt's Merchants' Magazine.*

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From the Scottish Farmer.

### McCormick's Reaper in Scotland.

We understand that Mr. Alexander of Taylorton, near Stirling, who owns one of Mr. McCormick's new reaping machines, is very much pleased with the work it has been performing on his farm. With three horses he can work the machine all day without overstraining the animals too much, while he can cut more with it than he can with two of the small manual delivering machines, which of course require four horses to draw them. With Mr. McCormick's machine, Mr. Alexander cuts round and round the field without regard to the lay of the grain; the cutting and the sheaving being alike satisfactory to himself and those of his neighbors who have witnessed the operations. He cut sixteen acres in two days of twelve hours, the horses working the whole day without any change, although the crop was in many places much laid and twisted. The cutting was excellent, and the sheaves very equally laid. On Friday, the machine is to be tried in a crop of beans, in a field near Stirling, when we have no doubt the owner will be glad to explain the working to all who are interested.

## Agriculture.

### White Willow for Hedges, &c.

*To the Editor of the Illinois Farmer :*

DEAR SIR:—Having frequently traveled through the northern counties of this State, my attention has several times been called to the remarkable growth of the hedges of the *Salix Alba*, or White Willow—which are now extensively cultivated in Lee and Ogle counties. And I have often been asked to state my views on the adaptation of this species of willow for hedges, wind-breaks, timber, &c. I cheerfully comply with this oft repeated request, by a statement of such facts as came under my observation. The hedges of willow which I noticed were in various stages of growth from ten years to one; and the results were indeed astonishing, and have induced most of the farmers of the adjoining counties to surround their farms with willow.

It is not over two years since public attention in Illinois was called to this means of growing hedges for the protection of orchards and harvests from the strong winds which every year seriously injure our crops. But so great has been the demand that over twenty millions of cuttings or slips of white willow, for these purpose will be sold in this State during the present year. In a few years the farms and gardens of thousands of farmers will be surrounded by living walls.

The origin of willow planting in this State is as follows: About two years ago a single slip of willow was sent from Ohio to a farmer in Lee county. This having been cut into four or five sections, was set out, and the cuttings of the next year's growth were treated in the same manner, until now Lee and Ogle counties contain many miles of beautiful hedge.

The original, or first planted row of willow, has become a dense wall of wood. It is over forty feet high, and will afford a cord of wood for every rod in length—a fact which naturally suggests the question: cannot farmers obtain their fuel in this manner at a less cost than coal or wood from the groves? There are also many miles of hedge of three, four and five year's growth, which are capable of turning cattle, horses, &c., besides affording a complete barrier to the fierce prairie winds.

The willow seems to be adapted to both these purposes; and hence it is eagerly sought after by farmers and fruit growers in the middle and northern parts of the State. The time necessary to the growth of willow hedges useful for all purposes above mentioned is from four to six years. The

cost is only a trifle; scarcely twenty-five cents per rod.

With ordinary care every farmer can have in a few years, the farm and home surrounded and protected with living fences—cheap, substantial and beautiful.

C. D. WILBER.

### Cotton Seed.

WASHINGTON, D. C., FEB. 11, 1863.

*To the Editor of the Illinois Farmer :*

DEAR SIR:—I duly received your note of the 29th ult.

With reference to cotton seed for those who wish to experiment, I have to say, that this department will do all that can reasonably be expected in the way of furnishing seed to your citizens. I believe that private enterprise should be called into action in the direction of cotton seed, as well as with reference to tobacco seed or wheat, and I would suggest that you appeal to the merchants of Southern Illinois to procure cotton seed and advertise it for sale, as they do other articles.

If you will give me the name and post office address of parties in Illinois, to whom you think it advisable to send cotton seed to, I will send to such persons, say from three to five bushels each, provided they will pay the express charges; or I will send it by railroad transportation, if you so direct.

Give me eight or ten names; however much I would like to stock all of your people with seed, yet I have not the seed to do it, and therefore suggest a limit.

Very truly,

ISAAC NEWTON.

Commissioner.

—Persons wishing the above will please write us and if all the names are not sent in we will forward them for the seed. We have requested the commissioner to send us five bushels, the most of which we will distribute to our subscribers.—ED

FLAX CULTURE IN ILLINOIS.—We learn from the *Decatur Gazette*, that Mr. R. Ellswood, of Decatur, will soon start on a tour through the Eastern States, for the purpose of visiting the flax manufacturing establishments which have sprung up within a few years in that section of country. The object is to inaugurate the culture of flax in this State, on a large scale, and then establish a manufactory, purchasing the raw materials from the farmers. It is said that the culture of flax is more profitable than the raising of wheat.



## Miscellaneous.

From the Chicago Tribune.

### Robert Kennicott and the Hyperbo-reans.

The pressure of political news upon our columns has deferred the attention deserved by the recently completed tour of our young townsman, Robert Kennicott, for four years a dweller among the people far towards the frozen sea. He has penetrated nearer the North Pole by land than any of his countrymen, and possibly any tourist. It is well known to many of our readers that his natural tastes, cultivated by a diligent use of liberal opportunities, had given him an honorable prominence among lovers of natural sciences in the North-west. So well known was he to many of our societies and associations, for this reputation was well earned, that when he came to devise a bold scheme of adventure and exploration in the unknown wilds of British America, he found his plans handsomely seconded by the Smithsonian Institute, the Chicago Audubon Club, the University of Michigan, and other bodies of savans, by this means was favorably brought to the notice of the managers of the Hudson Bay Company. The rest is easily told. Favored by them and placed in their channels of trade and intercourse, he has traversed, for the period above named, the wilderness of British America, and came back laden with the rich results a mind and habits like his could but accumulate in such associations.

If his friends will follow on the map the route laid down as followed by the young naturalist, it will make clear the range of localities he has visited.

He left the States in the Spring of 1859, the old Public Functionary of Washington being in the toils of the traitors. His point of departure was the shore of Lake Superior whence he struck out on the canoe and portage route of the Hudson Bay Company by Lake of the Woods and Rainy Lake, then down Winnipeg River and the Lake of the same name to Norway House, the principal depot of the Company. Thence around by the route connecting with the great M'Kenzie River district. This crosses Lake Winnipeg, follows the course of the Saskatchewan River to Cumberland House, and thence by the series of lakes and rivers, that characterize that region, to Churchill River, down which to Portage La Loche, thence down the Clear Water River to Athabasca and Lake Athabasca. and by the Slave Lake to the noble river of the North—the broad M'Kenzie—down which to Fort Simpson, the headquarters of the Hudson Bay Company.

By this route, it will be seen, the tourist and the *voyageurs* his companions, traversed the system of the great North American Lakes, and the chain between these and the noble valley, the water-shed of the M'Kenzie. Through this whole route he was, as stated, the guest of the Company, slept, traveled and fared with them, and enjoyed such facilities as would make any *savan* in the world envious, provided he had good legs and a good stomach for such a tour. The employees of the Company are chiefly Canadians and hardy Orkney men. Their transportation is by strong, light barges,

strong for the rapid rivers, light for conveyance across the numerous portages.

From Fort Simpson, on the M'Kenzie River, Mr. Kennicott struck across the Rocky Mountain chain into Russian America to the Youcon River, whose very name is borne by few maps. This extensive range comprises a tour taken by Mr. Kennicott 4,000 miles in extent to the northernmost and frozen verge of the continent.

What he saw there he must hereafter tell himself, and the narrative will possess a freshness denied to most books of travel. It has a field entirely new and unvisited. A wilderness it always will be, for it is too briefly on the world's sunny side to encourage much in the direction of the world's best society. Kennicott tells us that he suffered most from *heat and mosquitoes*. The cold, one can provide against, but what time the sun suddenly gets a chance at the tardy winter, spring is elided, and summer leaps at once into sway. Snow disappears, ice runs away, and the sun hotly plunges into his short work. No wonder that voyagers, suddenly transplanted from midwinter to summer's hottest period, melt and suffer by the change.

The only inhabitants of this immense region are miserable tribes of Indians. The principal wealth of the country are the animals, whose furs constitute the staple of the great English Company, which has so long borne sway and encouraged the savage hunters and trappers. The public have a right to expect it from Mr. Kennicott, that he tell them what he saw.

—We welcome our young friend back to the land of a warmer sun and less exacting climate. We shall read his descriptions of his three years at the North with interest. Ed.

### The Aphis.

1. It is a general law of Nature, that insects injurious to vegetation have their parasites and other natural enemies, which are sooner or later developed in sufficient numbers to exterminate the race they feed upon.

2. The aphis *avanae*—the insect which, during this season and the last, has destroyed large crops of oats, spring wheat, barley and rye—is undeniably of the louse species, having almost incredible powers of fecundity, developing from a single female, and without the intervention of the other sex, over two millions in twenty days.

3. Its enemy is of the lady bug species, perfectly harmless itself to vegetation, but an active poison, probably, to the domestic animals, should they be turned upon the stubble too soon after harvest, when the lady bug or *coccionella* has finished its attack upon the aphis.

4. The aphis is unlike the midge or Hessian fly, in the above particulars, except in the general characteristic of their being severally provided with the parasitic destroyers, and in having their ravages limited by conditions of the atmosphere and of heat and moisture, which are not clearly defined in some cases by early maturity, and by constitutional peculiarities in certain varieties of seed which possess a greater toughness of the pericarp, or outer covering of the seed.

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, MARCH, 1863.

MARCH has at last come upon the stage bringing with it the first faint glimmerings of Spring. In this latitude it is a busy month. Husking must be completed, and the stalks broken down and burned, to prepare the ground for the coming crops. Our Eastern friends know nothing of this, they carefully cut up and house the corn stalks for winter feed, while here as a general thing the corn is husked on the hill, and the stock turned in to feed on the leaves during pleasant weather. The stalks are broken down by the use of a heavy pole or railroad rail eighteen to twenty feet long, by attaching a team at either end and then drawing it sideways over the frozen ground. We often see raking and burning the stalks, husking and plowing the ground at the same time, but this is only in the West where corn is the one great crop. A few years and we shall see a mixed husbandry. The parallels of 39 and 40° are favorite ones for the cereals and grasses. Sugar, tobacco, corn, wheat, potatoes and hay will rank high among the field crops, while the orchard will teem with a great variety of fruit. Let us then in the beginning of the season, see that we make judicious selections, it is better to risk on two or three crops than on one. It is thus that what is called a mixed husbandry proves the most profitable.

AT HOME.—The editor has made up his plans of the season to remain at home, and nothing will draw him thence unless it be to settle some point in regard to the culture of the soil, or something new that will require a personal visit. To the several railroad companies who have so generously continued their kind favors to us, we return our thanks, and if we do not travel so much as usual we shall not be the less unmindful of the intimate relations that exist between them and the cultivators of the soil. With one single exception we tender our thanks to the conductors of the Illinois Central railroad. They have always proved themselves gentlemen, and take a just pride in the good name of the road; and no man coming West to seek a home but has been pleased with the kind attention shown him on every occasion. We have known them long and intimately. Nearly all of them have or are carving out homes for themselves, and thus have too much at stake to lightly

neglect the duty they owe themselves and the public. We do not claim to have a pattern farm or to set up for a model. Whatever we sow or plant is with a view of present or ultimate profit and value. We have neither time or money to throw away on fancy farming, and as we have a large family to feed must study economy in all our arrangements. Our place is now five years old, that is the age of the oldest fence and orchard since setting out as such, though the most of them are but one two and three years, but we trust our ground will compare well with any in the State of the same age, and it shall now be our pride to give them our personal supervision.

A VALUABLE SUBSCRIBER.—

"TOULON Feb. 14th 1863

Mr Editor of the ILLS FARMER

Dear Sir

I Come to the Conclusion that I would not take your paper any more for this reason I am Gowing to leave this part of this contrary I am Gowing to stop farming in Illinois I ordited it stop 2 year ago I dont intend to pay you for the last 2 years your servent

S. P. FAST "

—The above on the whole is rather honest, and we much prefer an open confession of cheating than your sneaking cur, who would steal your dinner and sneak off through the bushes without ever a yelp at you. We therefore take pleasure in putting Mr. Fast on the record without marring in the least the unique style in which he presents himself. Mr. F. will be an acquisition to any business to which he may turn his hand, and the agricultural community may feel proud at his retiring from the business of farming in which doubtless he has made many and great strides, for we can easily imagine that a man who will coolly refuse to pay for his paper after taking it two years, must have made an excellent farmer and a most amiable neighbor, in the way of breechy, half-starved stock, prowling about seeking what they might devour.

Mr. F. shows some shrewdness after all, and will doubtless find a change of business and of residence desirable, but he should go to some part of the State where disloyalty and petty cheating are more popular than among the farmers of Stark county. Wherever he may turn up he will bear watching.

TOBACCO SEED.—We have received a package of TWIST BUD tobacco seed from John M. Hunter, Ashley, Washington county. This is a variety highly commended by tobacco growers. We shall give it a trial. Mr. Hunter recommends the Connecticut Seed Leaf as the best for this part of the

State. We present tobacco culture in another part of the paper to which we call especial attention.

**COTTON SEED.**—At the cotton gin at Carbondale we learn that about 1000 bush. have been saved and probably as much more at Jonesboro and Vienna. This will plant about two thousand acres. We ask where the balance of the seed is to come from to supply the demand. Every mail brings us letters of inquiry in regard to seed. Some enterprising person might drive a good trade. If the willow speculators would turn their attention to the supply of cotton seed, a hundred thousand bales would be sent out of the State—the growth of 1863.

The Commissioner of Agriculture is willing to do all in his power, but Congress is too parsimonious. If that department could have the avails of our ship charter swindle, Mr. Newton could give us a good supply of seed. Last year the Patent Office sent out that drunken dog, Dennis, after cotton seed, but no seed came, and this same scamp would like to have the same job again. But we have a sober, trustworthy Commissioner of Agriculture, and what funds are put in his hands will be put to a good use.

Twenty thousand bushels of seed should be planted this spring, and we believe it would be if seed could be secured in time. We hope some of the merchants will move in the matter.

The China cotton seed, we fear, will not prove as good as anticipated on account of its age and sea exposure but we hope enough of it will grow to give it a fair trial. Seeds of all kinds from the north of China have appeared to do well in this climate, and we have high hopes of this China cotton seed. Those wishing to try it will apply to L. Tilton, Springfield, Illinois.

The *Chicago Post*, in an article entitled "Illinois Cotton," says: "We understand that extensive preparations are being made in Central and Southern Illinois for the cultivation of cotton during the coming season. Last year the scarcity of seed prevented hundreds of farmers from planting cotton who would otherwise have done so; but we learn that ample provision has been made to furnish all who wish to cultivate the Kingly Plant with native seed well adapted to the soil of Illinois. We also learn that Mr. Griswold, former president of the Illinois Central railroad, has imported a quantity of seed from the north of China, which he has deposited at Springfield, with the president of the Great Western railroad, who will furnish it to those who wish to try it, at par. The fact that there are hundreds of old settlers in Southern Illinois who have cultivated cotton successfully for

over fifty years, and that over 40,000 pounds of seed cotton has been cleaned by the cotton gin at Carbondale, besides large quantities at other points, should be ample proof that cotton can be successfully cultivated in Central and Southern Illinois.

**A WORD FOR THE ILLINOIS FARMER.**—In these war times when agricultural journals have to wait the slow march of conflicting sentiment, when many of them have fallen victims to the war, it is with pride that we turn to the encouragement that we receive on every hand of the value of a practical rural journal devoted to the interest of the planting public, and making the farm, the garden, and the orchard its exclusive business. That such a journal will be sustained we have many good reasons to know from the very many kindly letters received within the past few months. We take the liberty of copying the closing paragraph from one from the south part of the State enclosing his subscription: "A journal rich in editorial contributions from observation and experience, not made up too much of matter taken from other journals,—familiar with latitudes, the contour of surfaces, the differences in soils on which depend climate and its varied productions—familiar with the details of careful experiment is the journal everywhere needed, and in few places more than in Southern Illinois, where much is being done. Such a journal, in my judgment, is the ILLINOIS FARMER.

Respectfully,

ELIJAH BECKWITH."

**BUSINESS OF THE ILLINOIS CENTRAL LAND DEPARTMENT.**—The *Chicago Tribune*, speaking of the "business of the Illinois Central Land Department," says that during the five days ending on the 17th instant, the business of this department has been unusually heavy. The sales have amounted to \$53,000, and have been made to sixty-two actual settlers in tracts as follows: 31 forties, 31 eighties, 5 one hundred and twenties, 4 one hundred and sixties, 1 two hundred and forty, 1 three hundred and twenty, and 1 five hundred and sixty acre lots; making a sum total of 6,080 acres, at an average of \$8.71 per acre. The majority of these lands lie between Centralia and Mattoon, a tract of country not hitherto in much demand, and has been taken up by Germans, who have settled upon and will improve the property. The exhibit is a very flattering one for these hard times and auspicious for the agricultural interests of the southern part of the State. There are no better farmers in the West than the Germans. Their industry will transform these unimproved acres into fertile farms and add materially to the present wealth of the State.

**WHITE WILLOW.**—Will you give, through the *ILLINOIS FARMER*, your opinion of the white willow on the hills of Egypt, used in fence as posts and for retaining the soil where subject to wash?

The white willow will doubtless grow well on the hills about South Pass, and could be used for fence posts by putting oak rails, so as to grow fast at the ends. We have some doubts of its value to hold the soil where it will work, as the roots in that soil, like all forest trees, run too deep for the purpose. Shrubs like red wax berry and the Baeberry would do better. The former we think the best of all, as it is semi trailing. W. R. Prince, as will be seen by his letter, recommends it to protect the banks of rivers from being abraded by the current, and it will doubtless prove valuable with us for this purpose, but the washing and gullyng of hill sides is another matter.

**GEN. R. K. SWIFT**, of Chicago, writes us that he spent the past summer on one of the small peninsulas jutting into lake Huron. That he has several hundred acres of land, part of which he is bringing under culture. At that point he says they have one hundred and fifty days without frost, it being protected by the lake winds and its maritime climate protects it from late and early frosts. The General is giving the cranberry a trial in the way of field culture. That he will succeed we have no doubt. It will be one of the best points in which to grow and send out native colgreens, that could be well selected. We shall some day hear from this little point that so saucily juts out into the rough waters of the Huron.

**ANOTHER COTTON GIN.**—The Mt. Vernon *Guardian* says that their enterprising fellow citizens, Stratton & Ferguson, have recently purchased and fitted up at their mill, a new and complete cotton gin, which is now in working order, and that it will prove a great accommodation to farmers, many of whom have raised small crops of cotton the past year, and it will doubtless be the cause of extensive crops being planted the ensuing season. The want of a machine for ginning has heretofore deterred many from planting cotton, who will now cultivate it to a considerable extent.

**"NURSERYMEN AND TREE DEALERS.**—Nurserymen are required to take out licenses, as wholesale or retail dealers, as the case may be; and tree dealers, who buy to sell again, if they peddle their trees, must take out licenses as peddlers, and also as dealers, if they have places of business."

So says Mr. Com. Boatwell, and to whose behest we have bowed under protest. We cannot see why nursery products should pay license more than

farm products. But there is this excuse: it is impossible at the first attempt to do equal and exact justice to all, and we must wait the sober second thought to be put on a par with others.

**TOBACCO CULTURE.**—We would call attention to the article on this subject from our Ashly correspondent. To our northern readers we would recommend growing plants in hot beds. One hundred and fifty feet and half an ounce of seed will give an abundant supply of plants to the acre. We are not sure that paltring or pricking out in cold frames will not be the best for our climate, giving the plants an early start. The first cost of glass and pots is large, but if it will pay that is no objection.

**CARBON COAL.**—This coal, so called, is mined near Danville in Vermilion county, is of good quality and in an almost unlimited supply. To the inhabitants of the east part of the State, these mines are invaluable. We shall have more to say of them soon.

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## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.


**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.


**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.


**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.

**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their

may go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.



## DuPage County Nurseries,

NAPIERVILLE, ILLINOIS,

The proprietors would call attention to their extensive stock of

APPLE,

PEAR,

CHERRY,

PLUM, and

PEACH TREES.

GRAPES,

GOOSEBERRIES,

CURRENTS,

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&c., &c., &c.

SHADE AND ORNAMENTAL TREES,

200,000

Evergreen Trees.

from a few inches to eight feet.

Shrubs,

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SILVER LEAVED MAPLE,


(Not Poplar) from two to three years old.

Our trees are grown and handled in such a manner as to make them safe to transplant into orchards.

### OUR PRICES

will be found as low as from any good establishment.

Our trees are thrifty and healthy, some of which have fruited in our grounds.

 Catalogues Gratis.

Orders solicited.

LEWIS, ELLSWORTH & CO.

March 1, 1863. 2t

## Saint Clair Nurseries,

SUMMERFIELD, ILLINOIS.

Twenty-five miles from St. Louis, on the O. & M. R. R.

Have on hand and offer for sale the coming spring a large and well selected stock of trees of very superior growth, which they offer for sale to the trade or planters, at low rates for cash. We offer Apples, Cherries, Currants, Pears, Apricots, Gooseberries, Plums, Grapes, Strawberries, etc. 80,000 Peaches of the most popular market sorts, at \$75 per 1000, \$10 per 100. We offer a choice collection of ornamental stock shrubs, roses, plums, etc., etc. Correspondence and inspection of stock solicited. Feb'63-3m.

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

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M. L. DUNLAP,

Champaign.

March 1, 1863.tf

**NIAGARA NURSERIES,***Lockport, New York.*

The Largest and Cheapest Stock of

**Fruit and Ornamental Trees,**

West of Rochester.

**200,000**

Apple Trees, five to eight feet high, eight dollars per 100.

**50,000**

Standard Pear Trees, five to seven feet high, \$25 per 100.

**20,000**

Dwarf Pear Trees, three to five feet high, \$18 per 100.

Also a complete assortment of

**CHERRY TREES, PEACH TREES,***White Grape and Cherry Currants.*

All of the new varieties of

**NATIVE GRAPE VINES,****ORNAMENTAL TREES,****Shrubs, &c., &c., &c.**

Wholesale and retail catalogues sent to all applicants who inclose a stamp to prepay postage.

A correspondence is solicited.

Address,

**E. M. MOODY & SON,****Lockport, New York.**

February 1, 1863. 2m.

**FRUIT TREES**

AT

**WAR PRICES!**

The subscriber would call the attention of those desirous of planting Fruit and Ornamental Trees to his large stock. He has for sale this fall and spring

A FINE ASSORTMENT OF  
 Apples, Peach, Pear, Cherry, Plum,  
 Nectarine, Apricot, Quince, Shade  
 Trees, Currants, Strawberries,  
 Blackberries, Gooseberries,  
 Cranberries, Raspber-  
 ries, Grape Roots  
 and Cuttings.

ALSO A LARGE STOCK OF

**GREEN-HOUSE PLANTS.  
EVERGREENS.**

DECIDUOUS AND

**ORNAMENTAL TREES**

AND

**SHRUBS.**

DESCRIPTIVE CATALOGUES,

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P. S.—Omnibuses pass the nurseries every hour—  
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First quality, for orchard planting, apple and pear trees, standard and Dwarf Cherries, Nectarines, Plums, Grapes, etc., for sale low.

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West Side of Public Square,

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August, 1862.tf

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NORWAY SPRUCE, two years old,  
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BALSAM FIR, RED CEDAR, ARBARKVITE, &c., &c.,  
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A large stock of CONCORD GRAPES, one of the  
best varieties for the West.

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best for market, two to three years old, at half the  
usual rates.

STANDARD AND DWARF PEARS, of well  
tested varieties, together with a good assortment of  
Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
WAUKEGAN, ILL.

ROBT. DOUGLAS.  
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OF THE

## FRANKLIN GROVE NURSERY,

LEE COUNTY, ILLINOIS.

A. R. WHITNEY, PROPRIETOR.

300,000 Apple Trees for Sale.

ESTABLISHED IN 1843.

The subscriber has now in orchard 18,000 Apple  
Trees, 11,000 were in bearing the past season. The  
great amount of care now necessary to give this large  
orchard compels me to close out my large.

## Nursery Stock of Apple Trees,

Which are of kinds which have proved valuable, and  
hardy, in Northern and Central Illinois.

I will sell good selected four and five year old  
Apple Trees, from 3 to 12 dollars per hundred.

Three year old trees from 3 to 5 dollars per hun-  
dred.

Seedlings 2 to 7 years 2½ to 4 dollars per hundred.

Seedlings three years in seed bed, 5 dollars per  
1,000, just the tree to set a border around your or-  
chards. To purchasers of large quantities,

## EXTRA INDUCEMENTS

will be offered.

## ORNAMENTAL TREES AND SHRUBS

in like proportion as to price.

Full descriptive catalogue furnished gratis.

Trees and plants packed in the best manner.  
Charge, cost of material for packing. Trees and  
fruits delivered at the railroad station free of charge.

All letters of inquiry will be promptly answered.

Address,

A. R. WHITNEY,  
Franklin Grove,  
Illinois.

February 1, 1863. 3m

# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., APRIL, 1862.

NO. 4.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

✍ EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### April.

How steadily the months march onward, bringing in their train continued changes, not only in the weather, but in the labors of the field. But a little while ago and winter held its fitful sway of snow, of mud, of frozen streams and embargoed roads. Later, the birds of passage harbingered the Spring, then came the busy farmer into the field that yet lay under the russet hues of Winter, the seed was cast forth, and now the faint germ of the upspringing blades give token of active plant life; the buds are beginning to swell, and the crocus and the daffodils are peeping out along the garden border. The hot beds of the gardner are covered with

green plants, while the strawberry is putting forth its long leaves, the buds of the lilac are ready to burst, and the June berry will soon put forth its flag of white as a token of truce with Winter. The mud under foot, the fickle shower, and the slowly springing grass may put us at times a little out of temper, yet April with its pressing duties and rapid changing of the sere and brown of Winter to the gauzy haze that first woke up the forest, ready for May to dress in the full robes of Summer.

During March the fences have been put in order, the spring wheat, barley, grass and clover seed sown. Now comes the sowing of oats, of flax and the planting of the garden; the setting of fruit, shade and ornamental trees of hardy perennial shrubs and plants. About the middle of the month the cornfields become the center of attraction, and in this part of the State, the planting begins about the twenty-fifth, just at the close of the season for the planting of trees.

April is an important month, for it is then we lay the foundation of the Spring crops, which if badly done no after care can fully remedy.

The planting of trees is one of the most important duties of the month, and should on no account be neglected. These give to the homestead a pleasing feature that cannot be supplied by any

other object. A farm house is nothing without a surrounding of trees; the Summer meals are insipid without the summer fruits, the connings are cheerless without the breath of flowers and the whispering of the foliage of beautiful trees and shrubs. It is impossible to make a home in the country without trees and shrubs, misers and narrow-minded farmers often make the attempt, but it is a souless home, from which the younger members flee on the first occasion. The white willow fever will result in good, and fill the land with belts of waving green—it will do more—it will tend to a more correct taste in this department, and lead to more general tree planting. These belts will lay the foundation for orchards on the prairies, for they will demonstrate that plenty of good fruit can be grown under their protecting shelter.

Cabbage seed is now to be sown for the late crop. To be successful cover the bed with small brush about two feet deep, to be removed gradually as the plants grow and need more heat and light; all small garden and flower seeds should thus be covered to ensure success. If our lady friends will make a note of this they will find a less number of rascally seedsmen than now.

#### Flax Culture.

The cultivation of flax is now attracting no inconsiderable attention, not only from the high price of oil but for the new value attaching to the lint. The high price of cotton, which of late years has been largely used for the making of rope, canvass and other heavy fabrics, has impelled this change and hence flax is again in demand. Aside from this, the new machinery for its preparation which has vastly

cheapened its production, and cannot fail of maintaining it against cotton, for these and other uses, however cheap it may become hereafter. We may therefore consider flax as a crop for its lint, again placed among the great farm staples. The increasing demand for oil and the high price of European exchange has practically cut off the supply of English and Dutch oils, and thus will give our farmers the monopoly of this product, nor do we see any prospect of a change in this direction, prejudicial to the interest. What further value may be attached to it in consequence of chemical processes, preparing it for spinning on cotton machinery, is as yet uncertain, but from present indications we have hopes of at least a partial success. Under these conditions of things we have no hesitation in recommending its more extensive cultivation to the farmers on the prairies.

#### SOIL.

Any of our dry prairie soils are most admirably adapted to this crop. The black mucky prairie must be avoided, unless underdrained, when it will be found among the most valuable of soils. A too dry soil is not so well adapted to the crop as a deep rather moist one, but in no case must it be liable to standing water. Sandy soils are to be avoided as also gravelly ridges. When the land is rather flat it should be thrown into narrow ridges, say of two rods, this will give fair drainage, and will often save the crop.

Sward land, such as clover, Hurd's grass, or prairie land that has been pastured will bring a good crop of seed, though not profitable for lint.

#### PREPARATION OF SOIL.

Potatoes, beets, or any of the root crops precede flax to the best advan-



tage, and if the land has been kept clean of weeds, no plowing is needed to prepare it. Corn stubble is also valuable. If the stalks have not been cut in the Fall, they must be broken down, raked up and burned. The ground plowed, but rather shallow than deep. We would never recommend the plowing of corn land in the autumn for any purposes, preferring to give the corn roots time to rot; and then in plowing shallow in the Spring the stubs will not be in the way of the after culture. Corn stubble is generally friable to a great depth and hence deep plowing is not so essential, but we have another reason for shallow plowing in this case, or rather two of them. The most important of these is found in the fact that deep plowing in the Spring will bury the free potash that the Winter frost and exposure to the atmosphere has disintegrated, which if buried beyond the reach of the air again becomes fixed and locked up from the growing crop. The next season is the complete inversion of the surface soil, so as to bury the seeds of weeds, as this cannot be so well done with deep plowing. If we wished to stir the soil deeper than four or five inches, we would use a sub-soil plow. Wheat and oat stubble are next in order and should be plowed about six inches deep. Hungarian grass, millet and buckwheat stubble are to be avoided. After plowing, the ground must be thoroughly harrowed and if anyway cloddy must be rolled before harrowing, to crush the lumps, for it must be borne in mind that flax, above all, needs a thoroughly comminuted soil. After sowing nothing but the roller should be allowed on it, this will press the seed into the mellow soil, and the young plants will make an even

stand. Sward land can be broken up the latter part of May, after the grass has made a good start, plow about four or five inches deep, so as to give a firm bed for the seed. The sward must be thoroughly harrowed, sown and rolled as for old land, but harrowing after sowing is less objectionable, as it will not be possible to cover too deep.

#### AMOUNT OF SEED.

When the crop is cultivated for seed, only half a bushel of seed is the usual quantity, but as the crop will now be cultivated for the lint also, a bushel or even a bushel and a half will be required. In consequence of sowing thin for a number of years our flax has become more branching and stocky than is compatible with large profits for lint, and it may be some years before this habit will be overcome; thick seeding and rich soil are the only remedies.

#### TIME OF SOWING.

Flax can be sown at any time after the land is in good plowing condition in the Spring, and as late as the first of June in the north part of the State, but the late sowing will be best on sward land and for seed only. When lint is an object the crop should be sown before corn planting commences.

#### HARVESTING.

If for seed it can be cut with a reaper, and hauled to the stack or threshing floor from the gabels, but when the crop is both for seed and lint the cradle or sythe with a hoop on the snath to prevent its falling over the swath. In cutting with a sythe, the mower goes round the standing crop in the contrary direction to the usual way. The cut flax is pressed up against the standing crop in a diagonal position. The swath is taken up after the mower by hand and bound.

This is the old German mode of cutting the small grain and is well adapted to this crop, as it accomplishes the desired object in saving the whole of the stalk that is of value for lint.

As but few of our farmers have experience in this mode of cutting they will prefer the cradle. With this the crop can be cut quite close if it has been put in as directed.

The crop should be bound in all cases, as it will be not only economy in the subsequent handling, but the crop will be much more valuable to the manufacturer.

#### THRESHING.

When the crop is grown for seed, it is often left in the field to dew rot; in this condition it can be run through most of the threshing machine, but when not thus partially rotted, threshing with a machine will be out of the question. This practice is a bad one to say the least of it. When the farmer has a good tight barn floor, the flail is the best, or the seed can be taken off with a good broom-corn machine. The object is to keep the straw in a good straight condition and not snarled up in the handling. In threshing, many of the bolls will break off instead of bursting open to allow the seed to fall out; these will need crushing, either with a flail or by treading out.

Fanning mills are now constructed so as to admit screens to clean the seed and there is no use of sending to market foul seed. It should never be threshed on the ground as the dirt will seriously damage it, not only in the additional weight, but in pressing it absorbs the oil and gives it a dark color, therefore keep it off the ground in threshing.

“YELLOW SEED,”

which like chess in wheat is often found

in the crop, makes a good oil for burning, but being an essential oil will not dry or combine with the paint no better than so much lard, and should not be sown with flax on any account.

There is not the least excuse for sowing foul seed, as it is so easily cleaned. We would say to farmers buy the best seed you can find, and then clean it yourselves, and not pay double price, or contract your crop to get what is called pure seed—make it pure yourself.

#### DEW ROTTING.

After threshing, the straw is spread out on clean grass land, usually meadows. This is done by unrolling the bundles of straw in a swath, leaving it about an inch deep, when half rotted it is turned over by using the handle of a rake, and when fully rotted is raked into bundles and bound up. These bundles are then set in shocks to dry when they are ready to ship or store away.

Flax straw thus treated will command ready sale at a good price, while that cut with a reaper, threshed without binding is only valuable as tow and must be sold at a low figure.

#### Fruit at Cobden.

Last year the Bro. Evans sent to market eight thousand baskets of peaches (8,000.) The first shipment was of Serrated Early York, July 13th, Geo. the Fourth, 21st. The highest price sold in Chicago was \$3.50 per basket of half a bushel, and lowest \$1.25, making the less amount to a respectable sum.

August 10th, shipped 100 pounds of grapes at 25 cents.

June 17th, shipped Keswick's Codlin apple, and sold at \$2.25 per basket.

August 3d, shipped sweet potatoes,

sold at \$2,25 per box of three pecks.

So much for early fruits. This year we doubt not the shipment will be quadrupled from that point.

#### Agricultural Implements.

Chicago is becoming the commercial mart of the Northwest, and most of our dealers now obtain their stocks at that point. H. W. Austin & Co. have just sent out their wholesale list of goods wanted on the farm which embrace almost every article from the garden trowel to engine and sugar evaporators. The prices average less than we anticipated.

#### Mo. State Horticultural Society.

We are under obligations to W. C. Flagg, Esq., for proceedings of this Society for 1861-'62. The Winter meeting will be found in this number, by W. C. Flagg, Corresponding Secretary of our State Horticultural Society.

#### Sugar and Sirup Refinery at Quincy.

J. H. Smith writes us that he is about to start a sugar and sirup refinery at the Oborn place.

Our readers will recollect that Mr. S. has made several tons of sugar from the Imphee cane the past year.

#### Fruit Prospect.

In our own grounds bids fair for an abundant crop, scarcely a peach bud is injured, and we hear no complaint from any quarter, except the south part of our State in regard to the peach crop.

The total valuation of property in Cook county, Ill., (Chicago,) is \$32,943,527, of which \$26,961,905 is real, and \$5,981,622 personal.

A lazy man's farm is always dressed in WEEDS, as if he were dead and it were his mourning widow.

## Poetry.

### Winter Winds.

BY WILLIAM ROSS WALLACE.

Well may'st thou wail, O Winter wind!

This wild and melancholy march  
On thy lone harp of leafless trees  
Beneath yon Heaven's cloudy arch,  
Where looks the moon like one in woe,  
At all the agony below.

I know thy tones are always sad.

Ah, how unlike glad Summer's song  
Whose golden harp breathes ecstasy  
Amid her swooning, flowery throng!  
But ne'er before upon my ear  
Thy anthem moaned so darkly drear.

And well it may—ten thousand graves,  
The graves of warring brethren, lie,  
Dread, fadeless monuments of hate,  
Beneath the clouds of yonder sky;  
When last thou sung'st they glowed with life,  
Unsmote by that red, murderous strife.

O for the hearths made desolate!

Oh for the widows, orphans now!  
Oh for the nation with this cloud  
Of awful crape on its bent brow!  
What dirges from the harp of Time  
Are shuddering through the bleeding clime!

Yes, wail, wail, wail, O Winter wind!

Aught of less sadness would but be  
A mockery on the stricken earth,  
And to yon Heaven a blasphemy;  
And I—when thus my brothers sleep,  
What shall I do! Wail, wail, and weep!

### God Speed the Plow.

God speed the plow-share! tell me not  
Disgrace attends the toil  
Of those who plow the dark green sod,  
Or till the fruitful soil,  
Why should the honest plowman shrink  
From mingling in the van  
Of learning and of wisdom, since  
'Tis mind that makes the man.

God speed the plow-share, and the hands  
That till the fruitful earth,  
For there is in this world so wide  
No gem like honest worth.  
And though the hands are dark with toil,  
And flushed the manly brow,  
It matters not, for God will bless  
The labors of the plow.

## Agriculture.

From the Ohio Farmer.

### Substitute for the Common Hop.

BY PROF. J. P. KIRTLAND, CLEV. MED. COL.

The Patent Office Report for the year 1861, shows the hop to be one of the valuable species of the vegetable kingdom cultivated in the United States. During that year, it is estimated that there were exported of this article, 8,000,000 lbs, valued at \$2,500,000. To this amount must be added the large quantities employed in this country for domestic purposes, and by distillers and brewers, of the aggregate of which we are unable to obtain even a reliable estimate.

The successful cultivation of this plant requires the occupation of extensive tracts of the richest and most valuable lands. From Spring until Autumn, unceasing attention and a great amount of labor must be devoted to it. With a due employment of all these requisites, the crop is at best, variable and precarious. Attacks from several species of destructive insects, the occurrence of vernal and autumnal frosts, and of drougths or protracted rains, often defeat the best arranged designs of the cultivator. This is illustrated by the hop crops in Great Britain for three successive years, when over 50,000 acres of land were devoted to the cultivation of this vine. There were produced in the year

1853	31,000,000 lbs.
1854	9,000,000 "
1855	83,000,000 "

With these facts before us, it is evidently a desideratum to obtain a substitute, which will abundantly furnish the essential properties of the hop, and at the same time can be produced on all soils, rich or barren, in any waste nook or corner, flourishing under neglect, requiring little or no labor or care, and is, in a great measure, except from the contingencies of untimely frosts, dry or wet weather, depredations of insects, &c. Our indigenous vegetation, furnishes this very article.

The *PTELIA TRIFOLIATA*, or *Hop Tree*, is occasionally met with in Ohio; and on the waste downs, in the vicinity of the ruins of the lighthouse at New Buffalo, and along the eastern coast of Lake Michigan, it grows in profusion. It is a shrub which sometimes attains the height of 18 to 20 feet, and never fails to produce annually, an immense crop of winged seeds, (*Samara*, in Botanic language,) which abound in a bitter and aromatic principle, akin to that constituting the essential property of the hop. They apparently contain less of the narcotic principle. It is the aroma and bitter which imparts value to this last article for preserving yeast and malt liquors, and giving to them their palatable flavors. Without the addition of those two properties, the products of the brewery would be insipid and stale, and would soon run into an acetous fermentation. The presence of the narcotic principle, is deleterious to the nervous system when used in malt liquors, except for certain medicinal purposes.

By a suggestion of Mr. Hanford, and of his good aid, of Columbus, I was induced to institute a series of experiments with seeds of the *Ptelia*, to

test their value as a substitute for the hop in the forming of yeast for domestic use. The details would not interest your readers. The conclusions arrived at, were, that in most points of view, they were equal to the hop, and in some its superior. In their employment a caution is necessary. They are so much richer in those two properties than the common hop, that if that circumstance be overlooked, the bread raised by their yeast is liable to abound in a bitter flavor, not very palatable to the consumer.

From those experiments I am also convinced that this shrub can furnish a cheaper, and at the same time better substitute for the hop in the processes of brewing and distillation, as they are extensively carried on, both in this country and in Europe. The subject is worthy of investigation by those who are more interested in it.

Different parts of this shrub have been empirically employed as a substitute for quinine in the treatment of malarious fever—and it is possible that vegetable chemistry may succeed in obtaining from the seeds, the bark or the roots either a resenoid or an alkaloid which may prove a valuable addition to our materia medica.

This shrub is ornamental in the lawn. It can be readily propagated from seed and prefers a moist and sandy location, but will thrive in every soil.

CLEVELAND, Feb. 1863.

### Land Sales.

We recorded last month the active demand for land in this State; the sales of farms by the Illinois Central Company in February exceed in number any ever reached in a single month since the office was opened. Two hundred and sixty-two purchasers, more than half of them Swedes and Germans on forty-acre tracts, some fifteen to twenty sales for fruit farms south of Centralia, and, what is better, some sales to good Union men driven out from the South, make up the number of two hundred and sixty-two sales in one month. The Swedish settlement is being made in Ford county, about one hundred miles south of Chicago, on the branch line. The founders of this settlement have made a purchase of the Company upon the condition that the "Augustana College" shall be established there. This institution has already endowments from Sweden of a valuable library and some funds from contribution in that country. It is intended to take a high rank among the educational institutions of this State.—*Chicago Tribune*.

—In addition to the above we hear of a large number of sales of farms and farming lands by private parties, and things now look as though we are on the eve of the largest immigration of farmers to the State that has yet occurred. Let them come, we have the room for them. With the present price of farm products, farming lands must advance.—Ed.

The *St. Louis Republican* is advised that the people of Mississippi county are preparing to plant two thousand acres of their rich soil with cotton. Of its success, in that region, no body has any doubt.

### Comstock's Improved Patent Rotary Spader.

The cultivation of the soil by mechanical means grows in popularity every day. A few years ago our farmers regarded patent plows, cultivators, and labor-saving machines of a similar character, as so many "inventions of the enemy;" now patented implements for farming purposes can be found for sale in nearly every

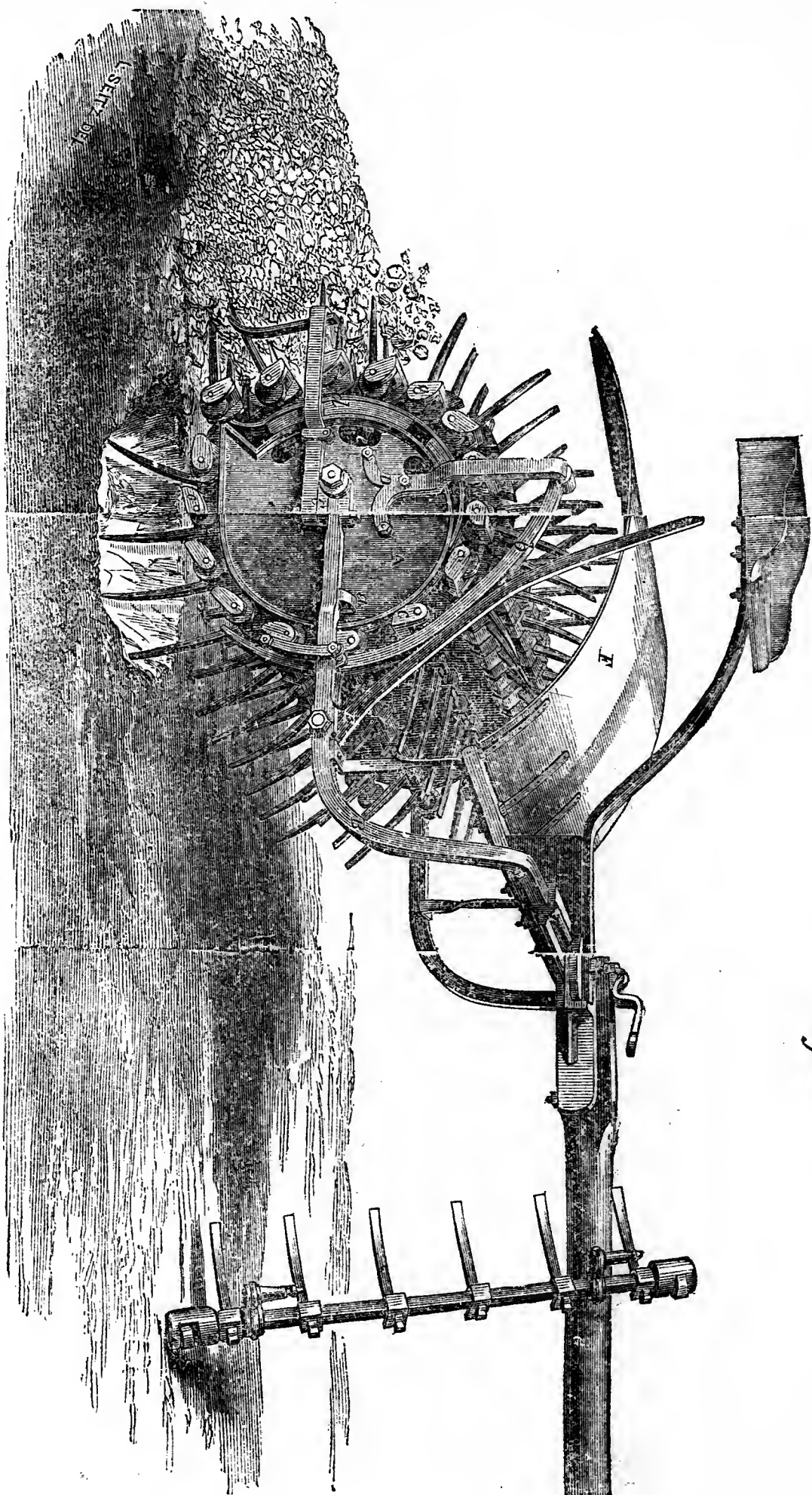


Fig. 1



village store, and in use upon every farm. The annexed engraving represents a new rotary spader of peculiar appearance and construction. The following description will be readily understood by the intelligent reader. The cast-iron cams, A, are provided with an axle to which they are keyed fast; they are attached to the wrought iron frame, B, by the connection, C, and have further a lug, *a*, which takes against the frame, and prevents the whole strain of the draft from coming on the key. The offset iron arm, D, is bolted to the face of the cam, and has an arm, *b*, jointed to the upper end, which is curved around the periphery of the cam, as shown in the engraving, so that it forms a groove or recess, in which the fork shafts, *c*, travel. The lever, E, is jointed to the frame, and bears against the back of the arm, *b*, so that it is kept up to the lug, against which it bears when the machine is in operation; when not in use the lever is thrown toward the team and carries the arm with it, thus opening the groove. The strap, *d*, attached to the

hinder end of the cam, has a piece of india-rubber interposed between it and the same, which serves as a spring. The forks are secured upon shafts, the ends of which have rollers that run around the cam as the machine is drawn along. The bottoms of the cams are tangential with the circumference and have also a peculiar hook at the hinder part, by which the action of the forks is much improved, a vibrating or sifting motion being thus obtained, which thoroughly pulverizes the soil. The plane surface at the bottom gives a horizontal movement to the excavating gear and adds very greatly to the efficiency of the tool. The iron apron, F, affords a protection from danger to the driver, in case of the breakage of the seat, from which point the operation of the machine is directed. The team is attached by the usual appliances to the pole, G, against which a detached roller shaft is seen inclined. The apertures, *e*, in the face of the cam wheel are made for convenience of access in adjusting the forks and the shafts in place.

Fig. 2

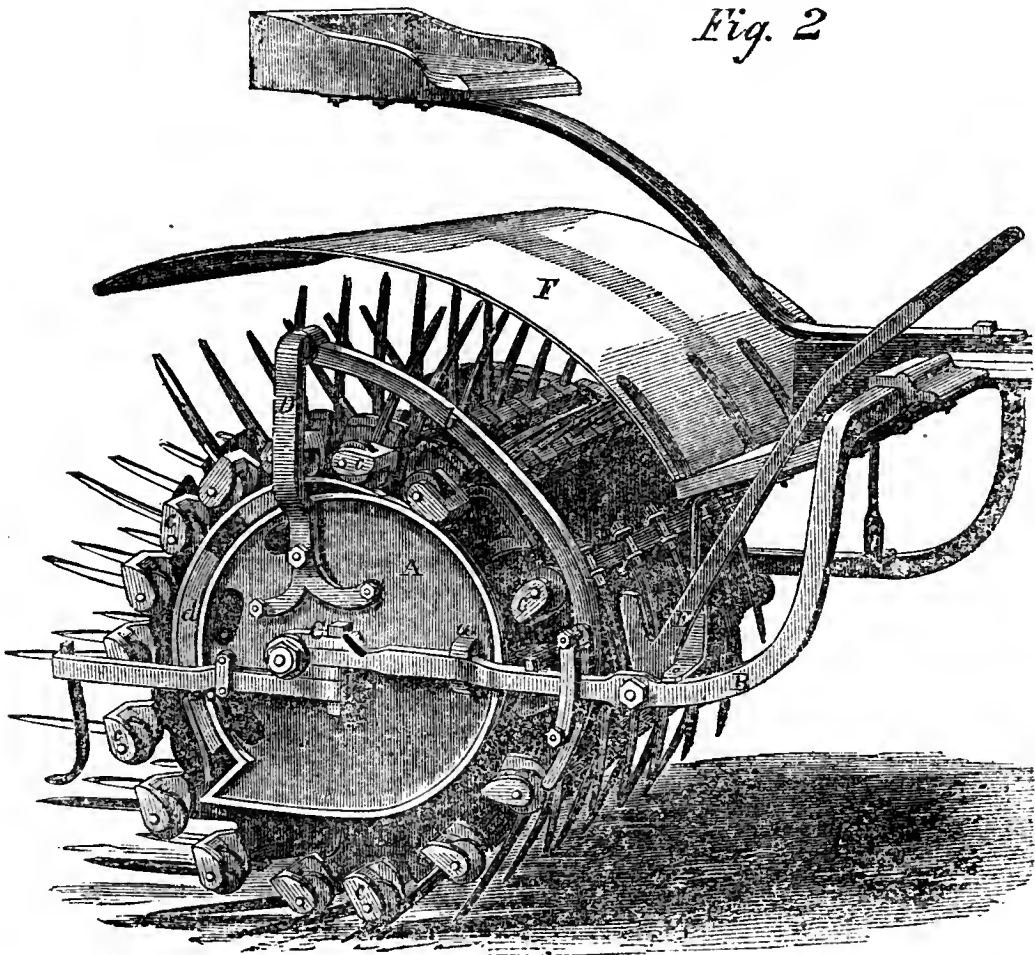


Fig. 2 is a representation of the machine with the forks thrown out of gear with the cams. The lever, E, is thrown forward, and the arm, *b*, then relaxes and so widens the groove that the forks assume the position shown in the engraving, and the machine may be drawn over the ground without their entering it. The arrangement of the other parts is similar, and presents no peculiarities not previously described.

The patent for this invention was procured May 13, 1862, by C. Comstock of Milwaukee, Wis., and further information may be obtained by addressing the inventor as above.—*Scien. American*.

—The above cut gives a good representation of

this new candidate for the suffrages of the farmers of the prairies. That it gives promise of great value we feel sure, from a limited trial as set forth in the last number of the FARMER.

The most serious objection to it, is its cost, which will to a great extent precludes its use by the small farmer. The present high price of iron and steel of which it is made is an obstacle that cannot be easily overcome, and we must be content with the condition of things as they are and hope for a reduction at an early day.

List of Premiums for Winter Meeting, 1864.

The following Premiums for Essays, Field Crops, Sugars, Sirups, Farms, Nurseries, Orchards, Draining, Native Wines, &c., will be awarded by the Executive Committee of the Illinois State Agricultural Society, at the January meeting, 1864. Competition confined to this State.

Each exhibitor, at the time of making his application for entry will pay to the Treasurer one dollar, and will be entitled to receive therefor a Membership Ticket.

ESSAYS.

Best approved Essay on the Breeding, Rearing, Breaking and General Management of Horses in Illinois, based on the practice of the author.....	\$10
Same of Cattle.....	10
Same of Sheep, adding the best breeds for wool and for mutton, their diseases and the remedies.....	10
Same of Swine, with the cost of producing pork for market, and especially embracing the author's opinions, based on investigation and experiment of the origin, nature, prevention and cure of the disease known as "hog cholera,".....	10
Best approved Essay on the cultivation of Cotton in Illinois, based on the experience of the author, with samples of his production.....	10
Same of Flax, with statements showing its economic value for seed and fibre, and samples of both.....	\$10
Same of Tobacco, together with its preparation for market, and samples.....	10
Best approved Essay on the cultivation of the Chinese and African Sugar Cane, the expression of their juice, and its manufacture into sirup and sugar, based on the practice of the author, with samples of seed of the varieties referred to, and of the sirup and sugar manufactured by the author.....	10
Best approved Essay on culture of Sugar Beets and manufacture of sugar therefrom, based on the experience of the author.....	10
Best approved Essay on the preparation and treatment of soils for the growth of the various crops.....	10
Best approved Essay on Orchards in Illinois embracing the selection of trees, location and preparation of soil, planting, culture and after management of trees and fruit, with means used to protect against insects and birds.....	\$16
Best approved Essay on insects injurious to vegetation in Illinois, with suggestions as to means for their destruction.....	15
Best approved Essay on the "Indoor Adornment of Home," to be written by a lady.....	10
Essays and samples to be placed in possession of the Corresponding Secretary, prior to the January meeting, 1864.	

FIELD CROPS.

Entries must be made in this lot with the Corresponding Secretary, as early as June 1st, 1863, except for cotton and cotton seed.	
For the best field of Fall Wheat, not less than five acres, nor less than thirty-five bushels per acre, first premium.....	\$20
Second premium.....	10

For the best field Spring Wheat—not less than five acres nor less than thirty-five bushels per acre—first premium.....	20
Second premium.....	
Best crop Indian Corn, not less than five acres, nor less than 100 bushels per acre.....	20
Second best crop Indian Corn, not less than five acres.....	10
Best crop of Barley, not less than five acres, nor less than twenty-five bushels per acre.....	10
Second best crop Barley, not less than five acres.....	5
Best crop of Rye, not less than five acres, nor less than twenty-five bushels per acre.....	10
Second best crop of Rye, not less than five acres.....	5
Best crop of Oats, not less than five acres, nor less than eighty bushels per acre..	10
Second best crop of Oats, not less than five acres.....	5
Best crop Buckwheat, not less than one acre nor less than twenty-five bushels per acre.....	10
Second best crop of Buckwheat, not less than one acre.....	5
Best crop of White Beans, not less than one-half acre.....	10
Second best crop White Beans, not less than one-half acre.....	5
Best crop of Irish Potatoes, not less than one-half acre.....	10
Second best crop of Irish Potatoes, not less than one-half acre.....	5
Best crop Sweet Potatoes, not less than one-fourth acre.....	10
Second best crop Sweet Potatoes, not less one-fourth acre.....	5
Best crop Onions, not less than one-fourth acre.....	5
Best crop Hemp, one acre.....	10
Best crop Flax, one acre.....	10
Best crop Tobacco, one-half acre.....	10
Best crop Clover Seed, one acre.....	5
Best crop Blue Grass Seed, one acre.....	5
Best crop Millet Seed, one acre.....	5
Best crop Flax Seed, one acre.....	5
Best crop Castor Beans, one-half acre.....	5
Best crop Carrots, one-half acre.....	5
Best crop Field Beets, one-half acre.....	5
Best crop Sugar Beets, one-half acre.....	10
Best crop Swedish Beets, one-half acre..	5
Best crop English Turnips, one-half acre..	\$5
Best one bushel Cotton Seed for culture in Illinois, and grown in this State in 1863, to become the property of the Society.	10
Best five acres of Cotton, the same to be ginned and weighed, fifty pounds of the product to be on exhibition at the rooms of the Society during the January meeting, 1864.....	100
Best one-half acre of cotton, the product to be ginned and weighed, 5 pounds of the same to be on exhibition at the rooms of the Society during the January meeting, 1864.....	25
Statements to be furnished by applicants for Premiums on Farm Products.	
1. The land shall be one contiguous piece, measured by a surveyor with chain and compass, who shall make affidavit of the accuracy of the measurement and quantity of the ground.	
2. The applicant and one disinterested person shall make affidavit according to the forms annexed, to the quantity of grain raised on the ground entered for premium, which, together with the sample of the grain, must accompany the statement required.	
3. The object of the Society being to pro-	

mote profitable cultivation, they do not propose to offer premiums for crops produced by extravagant expenditure; therefore, a detailed certified account of expenses of cultivation must be made. The expenses of labor and manure should be particularly stated, and the kind of manure used. The statement must be in the following form:

- To — loads manure, at \$— per load.....\$—
- To — days' plowing, at \$— per day.....\$—
- To — days' labor, at \$— per day.....\$—
- To — days' harvesting, at \$— per day.....\$—
- To — days' marketing.....\$—

And thus each item of expense incurred in the cultivation and the marketing of the various crops, upon which premiums are applied for, must be fully stated, and after giving credit for the product of the field, the balance must show the net profit realized.

4. The kind and condition of the soil; the quantity and kind of seed used; the time and mode of putting it in the ground, should be particularly stated.

5. Samples of grain and vegetables produced, to be sent to the rooms of the Board at the January meeting in 1864, for gratuitous distribution and for the museum in quantity as follows:

Wheat, corn, rye, oats, beans, potatoes, buck-wheat, carrots, beets and turnips, one bushel each; onions, one-half bushel; flax seed, one peck; and millet and castor beans, four quarts each; hemp, flax, and tobacco, five pounds each.

6. All the grain on the entire piece of land measured, except corn, must be weighed, and not the product of a square rod or two weighed or measured, and the remainder guessed at.

The yield of Corn to be determined as follows:

An average row (in length and yield) on each end of the five acres to be husked and weighed in the ear after the 15th November and the whole number of pounds thus ascertained to be stated in the affidavit.

Forms of Affidavits.

— county, ss.—A. B., being duly sworn, says he is a surveyor; that he surveyed with chain and compass the land upon which C. D. raised a crop of — the past season; that he land is in one contiguous piece, and the quantity is — acres, and no more.

A. B., Surveyor.

Sworn to before me, this }  
— day of — 18—. }

—, Justice.

— county, ss.—A. B., being duly sworn, says that he raised a crop of — the past season upon the land surveyed by A. B., and that the quantity of grain grown thereon was — bushels, determined by actual weight at the rate of — pounds to the bushel; that he was assisted in harvesting and measuring said crop by E. F.; that the statement annexed subscribed by this deponent, as to the manner of cultivation, expense, etc., is in all respects true, to the best of his knowledge and belief; and that the sample of grain exhibited is a fair average sample of the whole crop. C. D.

Sworn to before me, this }  
— day of — 18—, }

—, Justice.

— county, ss.—E. F., being duly sworn, says that he assisted C. D. in harvesting, getting out and measuring his crop of — referred to in the above affidavits; and that the quantity of grain was — bushels, and was grown upon said ground, as stated in the affidavit of C. D.

E. F.

Sworn to before me, this }  
— day of — 18—. }

—, Justice.

SUGARS AND SIRUPS.

Entries may be made any time during the year.

- Best ten pounds sugar, being a sample of at least 100 pounds made by exhibitor, from the Chinese Sugar Cane, the variety to be identified under oath, and sample to be presented at the same time..... \$10
- Best ten pounds sugar, being sample of at least 100 pounds, made by exhibitor from Imphee, with same requirements as for Chinese..... 10
- Best ten pounds sugar, made from Sugar Beets, with specimen of the beets..... 10
- Best ten pounds sugar, made from either the African or Chinese canes or sugar beets..... 10
- Best one gallon of sirup, as sample of at least one barrel, made by exhibitor from Chinese sugar cane, without the use of clarifying or cleansing agents, other than fire and skimmer..... 10
- Same from African or Imphee cane..... 10
- Same refined from African or Chinese cane 10
- Best ten pounds refined sugar made from African or Chinese cane..... 10

Competitors for premiums on sugars and sirups must file with the Corresponding Secretary previous to the January meeting, 1864, careful detailed statements of their respective modes of manufacture, machines or implements used, cost of production, and whether any chemical agent has been used in any part of the process; and each one must also send to the rooms of the Society a specimen of the cane, with sample of the seed, if matured; the whole to be verified by affidavit of exhibitor.

FARMS.

Entries may be made at any time during the year.

- Best improved and highly cultivated farm, not less than one hundred and sixty acres..... \$25
- Best improved and highly cultivated farm, not less than forty acres nor more than one hundred and sixty acres..... \$25
- Best arranged and most profitably managed Dairy Farm..... 25

Each exhibitor must prepare and file with the Corresponding Secretary, before the January meeting, 1864, a statement embodying the following facts and items:

1. Locality, (township and county.)
2. Diagram with explanations, showing, 1. The number of acres cultivated. 2. The number of acres in pasture and meadow. 3. The number of acres in timber. 4. Divisions of fields, the roads and water courses; each field designated by a number.
3. Character of the soils and subsoils, whether drained; and if so, when and how.
4. A clear, succinct account of his mode of farming, rotation of crops, breeds and number of stock produced and handled, how, when and where the products of his farm are usually marketed, the principal implements used in his culture and harvesting of crops, amount and kind of labor employed, and a particular statement of his entire farming operations for 1863, showing the profit and loss on particular crops and products for the year. The whole to be verified by affidavit of Exhibitor.

From exhibitors of dairy farms, the following additional particulars will be required:

1. What is believed to be the most productive and profitable grass for hay. What for grazing, and what for soiling.
2. The mode of cutting and curing hay.
3. What breeds or crosses are deemed the best milkers.

4. Winter feed and care of stock.
5. Summer feed and care of stock.
6. The process of making and curing cheese, including a description of mode of preparing and using the rennet; daily weight (if known), and treatment of the milk, apparatus used, weight of daily product, process of manufacture, packing and marketing.

7. Butter—how, when, and in what quantity made.

8. The consumption of the whey and value of the same for feeding swine.

9. Samples of the cheese and butter to be exhibited at the winter meeting of the Board, 1864, to-wit:

Five pounds of butter made the first week in each month, from May to September, 1863.

One hundred pounds of cheese made any time during the season.

#### MARKET GARDEN.

Entries may be made any time during the year.

Best arranged and cultivated market garden. \$20

Each exhibitor must file with the Corresponding Secretary, prior to January meeting, 1864, a statement, embracing information on the following points:

1. Location, (county and township).
2. Number of acres cultivated in 1863.
3. Character of soil and subsoil and their preparation before planting; if drained, how?
4. Leading varieties of vegetables grown, with their yield per acre in bushels.
5. General management and rotation of crops.
6. Manures—their cost, how and where procured, quantity per acre, how and when applied.

7. Where the products are marketed and what the net revenue per acre after deducting cost of labor employed in producing and marketing.

To be verified by affidavit of exhibitor.

#### NURSERIES.

Entries may be made any time during the year.

Best arranged, cultivated, and managed nursery of fruit trees and fruit shrubs.... \$25

Best arranged, cultivated and managed nursery of fruit and ornamental trees, shrubs and plants.....\$25

Each competitor must file with the Corresponding Secretary, before the January meeting, 1864, statement embracing full information on the following points:

1. Location, (county and township).
2. The number of acres devoted to nursery purposes each year, commencing with the establishment of the nursery.
3. Character of soil and subsoil with the usual preparation of same before planting.
4. Leading varieties of fruit trees grown, with details of mode of propagation most esteemed for each.
5. Culture and treatment of leading sorts after planting until ready for market; manures—what, when and how used; pruning and training—how and when done.
6. Where the products have been usually marketed.

7. A diagram showing internal arrangement of the nursery grounds with reference to roads, walks and blocks for the current year 1863, each block to be designed by a number with explanation accompanying.

8. If evergreens are cultivated, their mode of propagation and after treatment.

9. What branch of the nursery or what speciality has in general yielded to exhibitor

the largest revenue in proportion to the cost of proportion and market.

#### ORCHARDS.

Entries may be made any time during the year.

Best apple orchard.....	\$15
Second best.....	10
Best pear orchard.....	15
Second best.....	10
Best peach orchard.....	15
Second best.....	10

Samples of the fruit grown, then in season, must be exhibited at the Society's rooms, during the January meeting, 1864, prior to which each exhibitor must file with the Corresponding Secretary a statement, embracing full information upon the following points:

1. Location, (county and township).
2. Number of acres in orchard.
3. Varieties of fruits grown, with names of sorts.
4. Product in bushels, with market value of fruit grown in 1863.
5. Character of soil and subsoil, with account of means used to prepare them for planting.
6. When planted, distances apart, treatment, training, pruning and general management and after culture of trees.
7. Preservation and marketing of fruit, with design for fruit room, preferred by exhibitor.
8. List of such varieties as have proven the most profitable for market.

To be verified by affidavit of exhibitor.

#### DRAINING.

Entries may be made any time during the year.

For the best experiment in underdraining during the year 1861, not less than five acres.....\$10

Statement to be filed with Corresponding Secretary prior to January, 1864, showing—

1. Situation and character of the land, (whether prairie or timber), and description of soil and subsoil previous to commencement of the process.
2. Methods pursued, with particular account of the expense per rod.
3. The results and increased value of the land, if any portion has produced a crop during the year.

#### NATIVE WINES, CIDER AND VINEGAR.

Entries may be made any time during the year.

Best three bottles Catawba wine, the product of this State.....	\$10
Best three bottles Isabella wine, the product of this State.....	10
Best three bottles of wine from any other grape, the product of this State.....	10
Best three bottles currant wine, the product of this State.....	10
Best three bottles raspberry wine.....	3
Best two bottles strawberry wine.....	3
Best three bottles rhubarb wine.....	3
Best three bottles blackberry wine.....	3
Best three bottles cider.....	3
Best six bottles cider vinegar.....	3

To be sent to the rooms of the Society, in Springfield, prior to January, 1864, each sample to be accompanied with a sealed statement of the process of manufacture, name and address of exhibitor.

#### CANNED FRUITS.

Best display of fresh peaches, canned in 1863.	\$ 3
Second best.....	1
Best fresh pears in cans or glass.....	2
Second best.....	1
Best fresh plums in cans or glass.....	2

Second best.....	1
Best fresh quinces in cans or glass.....	2
Second best.....	1
Best fresh cherries in cans or glass....	2
Second best .....	1
Best fresh currants in cans or glass.....	2
Second best.....	1
Best fresh gooseberries in cans or glass....	2
Second best.....	1
Best fresh raspberries in cans or glass.....	2
Second best.....	1
Best fresh strawberries in cans or glass....	2
Second best.....	1
Best display of fresh canned fruits—the samples to be distinct from the foregoing.	5
Best apple butter.....	2
Second best.....	1
Best peach butter.....	2
Second best.....	1

## GREEN FRUITS.

Best 6 varieties, 3 each, winter apples.....	\$10
Best 3 varieties, 3 each, winter apples....	5
Best 4 varieties, 3 each, winter pears.....	5
Best 2 varieties, 3 each, winter pears.....	3

## BUTTER AND CHEESE.

Best butter in tub or firkin, not less than 25 lbs, made at any time during the year.....	\$10
Second best.....	5
Best butter made in May or June, not less than 20 lbs.....	10
Second best.....	5
Best fresh butter in roll, not less than 10 lbs.....	5
Second best.....	Transactions.
Best cheese 1 year old or over.....	\$10
Second best.....	6
Best cheese under 1 year old.....	10
Second best.....	5

It is designed to make the Winter Meeting at the capitol, an occasion of interest and importance to all who may choose to attend.

A proper exhibition hall will be provided, competent committees appointed, and the requisite attention given by the board.

### Cider and other Wines.

The *Scientific American* speaking of "Cider and other wines," says: When Cider has fermented for a week in a cask, add half a pound of white sugar to every gallon; and then allow it to ferment further until it has acquired a brisk and pleasant taste. An ounce of the sulphite of lime is then added for every gallon of cider in the cask, and the whole agitated for a few minutes and then left to settle. The sulphite of lime arrests the fermentation, and in the course of a few days the clear cider may be poured off and bottled, when it will retain the same taste that it had when the sulphite was added. About an ounce of the sulphite of lime added to the gallon of cider in any stage of fermentation will preserve it from further change. A sparkling cider wine is produced by the mode described.

The following is another method of making cider wine:—Take pure cider as it runs from the press and add a pound of brown sugar to every quart, and put it into a clean cask, which should not be filled to within about two gallons of the top. The

cask is then placed in a moderately cool cellar or apartment, and the cider allowed to ferment slowly by the bung-hole being left open until it has acquired the proper taste and sparkles when a small quantity is drawn. The cask is then bunged up tight.

We have given these receipts for what they are worth, because they are followed by many persons in making wine artificially from cider, but a real pure and first class wine cannot be manufactured by the use of cane sugar in vegetable juices. It is a remarkable fact that currant, cider, grape and other wines that are made by adding common cane sugar in fruit juices are very similar in taste—the flavor being what is called "smoky." This is due to the fermentation resulting from cane sugar. The vinous fermentation of the pure juice of the grape is due to grape sugar, which is entirely different from that of the cane.

Grape wine should be allowed to remain for a long period in oak casks after it is made, before it is bottled, otherwise it will be comparatively sour to the taste. This is owing to the great quantity of the tartrate of potash in the juice of the grape. When standing in a wooden cask the tartrate is deposited from the wine and adheres to the interior surface of the vessel, and it forms a thick and hard stony crust called "argel." This is the substance of which our cream-of-tartar and tartaric acid are made. In its crude state it is employed by silk and woolen dyers in producing scarlet, purple and claret colors in conjunction with cochineal and log-wood. This explains the cause of the wines becoming sweeter the longer they stand in casks in a cool situation.

Wine may be made of the juice of the sorghum cane by permitting it to ferment for a short period in the same manner as has been described for cider, then closing up the cask tight to prevent access of air. The fermentation of all saccharine juices is due to the combination, chemically, of the oxygen of the air with some of the carbon in the sugar of the juice. A small quantity of alcohol is thus generated and absorbed by the fermented juice. Carbonic acid gas is also generated; when absorbed by the liquor and retained under pressure this gas imparts the sparkling property to wine. When the saccharine juices are undergoing fermentation they must be tasted frequently for the purpose of arresting the fermentation at the proper stage, because there are two stages of fermentation, called the vinous and acetous. The first is that in which alcohol is produced; the second vinegar. Many artificial wines have a light vinegar taste which is caused by allowing the fermentation to proceed a little too far. These hints will be useful to those who prepare light domestic wines. These are now made very generally, and are held to exert a favorable influence in many cases of dyspepsia.



## Horticulture.

### Proceedings of the Missouri State Horticultural Society.

#### GRAPES.

An essay was read on the subject by George Hunsman, of Herman, who affirmed that Missouri contained more grape ground than all France, Germany and Italy, and predicted a brilliant future for wine growing within her borders.

Mr. Hunsman has tried 100 varieties. Found the Delaware at first fruitful and excellent; but the two following seasons it leaf-blighted badly. Norton's Virginia made 400 gallons of wine per acre, worth \$800. Deducting \$100 as the cost of cultivation and other expenses left a clear profit of \$700 per acre. The Herbmont, with protection, he considered equally valuable. The Concord would produce \$1 per vine. The Catawba he knew too well to like.

Mr. Hunsman concluded by recommending the following lists:

#### FOR GENERAL CULTIVATION—WINE.

Norton's Virginia.  
Herbmont.  
Concord.

#### FOR GENERAL CULTIVATION—TABLE.

Concord.  
Herbmont.  
Hartford Prolific.  
Union Nillage.  
Black.  
North Carolina Seedling or Mary Ann.

#### PROMISING WELL—WINE.

Cassady.  
Cunningham.  
Arkansas.  
Cynthiana or Red River.  
Clinton.  
Louisiana.  
Taylor's Bullit.  
Minor's Seedling.  
North Carolina Seedling.

#### PROMISING WELL—TABLE.

Clara.  
Taylor's Bullit.  
Minor's Seedling.

Mr. Husmann was followed by Mr. Malinckrodt, of St. Louis, who gave a very interesting extempore lecture on the grape coming from the best wine districts of the Old World. Mr. Malinckrodt brought to this county eighty varieties of grapes from France and Germany twenty-two years ago. After many years cultivation they all did. Seedlings from Malaga raisins grown in the shade, met with no better success, and of all foreign varieties the Rulander and Burgundy sent by Mr. Muench alone succeed.

As regards native grapes, the Isabella has been found unworthy. The Catawba rotted and mildewed. The diseases of the grape he reckoned to be,

1. Mildew.
2. Fungi, which Dr. Engelman says are taken up in solution by the roots, and in wet seasons car-

ried by the sap into the fruit where they ripen their seed in the berry. Norton's Virginia not affected by it.

3. Fungi on leaf.

4. Midge, for which Dr. Engelman says there is no remedy except a strong draught of air. The Clinton, Concord and Taylor are exempt from the midge, Norton's Virginia nearly so. Delaware are injured by it, and Catawba and Isabella ruined.

For grape growing Mr. Malinckrodt would prefer the highest ground and a poor soil. The best soils in the order of their excellence are:

1. Volcanic soil, with no vegetable matter in it, like that of Naples and California.
2. Calcareous soil, especially if it have rock underneath.
3. Pebbly soil.
4. Hard pan soil.

Would manure with lime and ashes, using no vegetable manure.

As to varieties of grape:

The Catawba is a good grape, but has too many faults. The Concord is the best market grape, but not the best table grape; ripens evenly. The Delaware is good for low growing, because it makes little wood; is sweet and sugary, but without aroma. The Taylor has aroma, is an immense grower and full bearer. Norton's Virginia is an immense bearer; had 60 pounds from three vines, its wine would not equal that of Europe. We cannot do that yet, but hope much of the future. The Clinton is a good grape, ripening the 15th of July.

But little wine had been made yet, and people were not ready to treat it as it needed. Deep cellars were needed to keep the wine sweet until matured. The larger the quantity in a body, and the lower the temperature, the better.

Mr. Malinckrodt has been experimenting with thirty-five varieties.

Mr. Knox, the strawberry king of Pittsburg, said he had not had much experience with the grape, but some success, and hoped for more. I stir the soil to the depth of twenty inches and drain if necessary. Plant vines 6x8 and train them by a modification of the renewal system. Cut the vines down so as to get two good arms and then let every other spur bear.

He has tested and found good, in his locality, the Hartford Prolific, a valuable grape, which he had considered the best until last season, which with him is without disease, and does not drop its fruit. The Creveling, which had fruited once, and then five days earlier than the Hartford Prolific. The Delaware, which he had tested three years and thought sufficiently praised. The Concord, which he had fruited five years and considered best; never mildews, free from rot, ripens evenly, which is a great advantage over Isabella and Catawba. A vine of it set at one year old, will produce 10 lbs of fruit in three years, and twenty-five in four, on an average. It is a good table grape with him, better than the Delaware, which cloy with sweetness. Nine-tenths of the people in the Pittsburg market prefer the Concord to the Delaware. For the present, it is the grape of the country.

Malinckrodt.—The Concord does not keep well after being picked. No European would touch it as a table grape. For the present, however, it will do. Rots some. The Herbmont and Taylor

are perhaps nearest the European standard of excellence. Plant the Herbemont in a poor soil, and it will injure less. I cover mine every winter. Anything which drops its leaves before its time will be injured by the cold, for it will take a second growth. Such is the case with some raspberries and the Herbemont.

Kno.—I found the Concord to keep well on the vines. Marketed them from the vines from the 10th September to the 15th November the past year. The Creveling is about the size and color of the Isabella, but with a pulp less tough. Would not advise planting this or Hartford Prolife, except to fill space in the season. The Hartford prolific ripens with me on the 1st; The Delaware on the 5th, and the Concord on the 10th of September. My situation is on a high point, 300 or 400 feet above the river, with several different exposures.

Heaver, Cincinnati.—I think the Delaware better than the Concord, though the latter is more profitable and the grape for the million. The best native hardy grape is the Delaware. It has proved equal to the Catawba as a wine grape at Cincinnati. The Herbemont is not so generally cultivated as it should be. It is quite hardy in ordinary circumstances, though it was killed in the hardest winters. The three best grapes are the Delaware, Concord and Herbemont. The Catawba, when best grown, is equal to any, but it has too many defects. It has a rich aroma, in which it excels all other grapes. Norton's Virginia is being sought for with us, and one wine-grower has it extensively. Its wine is not so good to the American Palate. We condemn Taylor or Bullitt for its small size, big seed and want of aroma. It is inferior in size to the Delaware.

Malinckrodt.—With me it is larger and more aromatic. What is the origin of the Delaware?

Heaver—Moshier raised vines from the seed of the Delaware, three of which were liked but foxy—an American peculiarity. It was brought to Ohio originally from New Jersey.

Knox inquired after Cayahoga.

Heaver—It was cultivated seven or eight years by Mr. Longworth as Colman's White. It was named Cayahoga by a Cleveland society. Fine for a white grade; the best one we have tasted; better than Anna or Rebecca, which has its foliage burned up before the middle of July. A strong grower; large, handsome.

Husmann—I think a great deal of Taylor's Bullitt. It is larger than the Delaware; with me next in quality; three times the luxuriance, and will stand anything. The Clara is the best tasted native to my taste out of more than one hundred kinds. It is a pure white grape.

Dr. Edwards—I have fruited Taylor's Bullitt alongside of the Delaware this year. The fruit is much the largest.

N. J. Colman, St. Louis—Have known Taylor's Bullitt four or five years, and think it promises remarkably well. The berry is larger than that of the Delaware. The vine is hardy, vigorous and needs little pruning. I would call attention to Burgundy and Rulander. The former has been grown in St. Louis ten or twelve years, and does well. The Bulander has been at Ste. Genevieve fifteen, twenty or thirty years, and proved hardy, prolific and satisfactory.

Husmann—Cassady promises well; very sweet, white grape. So do North Carolina seedling and Clinton. For table grapes, in quantity, I put Clara first and Herbemont second. So does the Cunningham, as bearing a peculiar wine of great strength and of a flavor much liked by many; remains sweet a long time.

Knox—I would name as worthy of attention, Elsinburg and Diana. The last with me kept well to January.

A committee, consisting of Messrs. Husmann, Heaver and Knox, appointed to report a list of wine and table grapes, recommended the following which were disposed of as follows:

#### TABLE AND MARKET.

Concord, adopted by the Society.	
Delaware.	" "
Hartford Prolife	" "
Herbemont	" "
Union Village—Not adopted.	
Catawba—Added.	•

#### WINE.

Norton's Virginia, adopted.	
Herbemont,	"
Catawba,	"
Delaware,	"
Concord,	"
Clinton,	"

#### PROMISING WELL FOR TABLE AND MARKET.

Creveling, not adopted.	
Cuyahoga,	"
Clara,	"
Blood's Black,	"
Mead's Seedling—Added.	

#### PROMISING WELL FOR WINE.

Cunningham, not adopted.	
Cassady, not adopted.	
Minor's Seedling, not adopted.	
Diana, not adopted.	

Catawba was added to the table list with a good deal of objection.

#### WINES.

In this connection we should place the result of the examination of the wine committee, who, after testing various wines, placed them in the following order in point of merit:

- 1.—Norton's Virginia—Wm. Poeschel, Hermann 1862' 82 1-7.
- 2.—Norton's Virginia—Fred. Noc, Hermann, 1862, 78 1-7.
- 3.—Norton's Virginia—M. Poeschel, Hermann, 1852, 77 4-7.
- 4.—Catawba—Wm. Poeschel, Hermann, 1862, 74 4-7.
- 5.—Herbemont—Wm. Poeschel, Hermann, 1862, 74.
- 6.—Catawba—M. Poeschel, Hermann, 1862, 73 4-7.
- 7.—Concord—Wm. Poeschel, Hermann, 1862, 72½.
- 8.—Clinton—Samuel Miller, Pennsylvania, 71 3-7.
- 9.—Concord—J. S. Seymour, Eureka, Mo., 18-62, 70 5-7.
- 10.—Catawba—Fred. Noc. Hermann, 1862, 70.
- 11.—Catawba—J. F. Walter, St. Louis county, 1860, 68 4-7.

12.—Herbement—Fred Noe, Harmann, 1862, 66 6-7.

The last figures show the absolute and relative excellence of the wines on a scale of 100. It will be observed that Norton's Virginia seems to have been a decided favorite of the committee, and that Wm. Poeschel had the best, not only of Norton's Virginia, but of Catawba, Herbement and Concord.

#### STRAWBERRIES.

Geo. Booth, Alton, Ill.—Have tried Longworth, McAvoy's Superior, and Iowa. Plant in rows four feet apart and let them spread. Run a Cultivator between the rows after picking, mulch in the fall with straw, leaves or manure. Prefer manure except that it brings in seeds of weeds. Like the McAvoy best. Shipped it as far as Fon du Lac in half-bushel boxes without damage. I get these boxes made out of cotton-wood at six cents apiece. They are twenty-four by eighteen inches and three inches deep. Use three-eighth inch stuff for bottom and top, and half inch for the rest. The cottonwood holds nails better than pine and costs less. Have my berries picked by the quart, two cents per quart being the ordinary price. Gathered forty bushels the past summer from half an acre, worth, gross, \$4 50 per bushel in Chicago, or about \$3 net.

F. A. Quinette, St. Louis.—The Strawberry is a more valuable fruit in Southern than Northern latitudes, though the contrary is generally believed. First, because an acid fruit is more needed in warm climates; and secondly, because the season is much longer. A strawberry bearing ten days in Wisconsin, will bear ninety days in Louisiana, provided it succeeds. All fruit must be tried on your own soil. Wilson's Albany is worthless on my soil, which is a light, dry lime soil, while it succeeds with Mr. Colman only a few miles distant. McAvoy's Superior is very poor at Boston, but very fine here.

I commenced a plantation in Louisiana, and tried sixty kinds of strawberries. A German variety, whose name I do not know, succeeded best. There we plant in October and November. The vines bear the next year, and then die out. I had six acres of this German variety. We commenced picking the first of March and continued two and a half months or more. I think the strawberry can be made to bear there four months. The locality was just below New Orleans, and just South of 30 degrees.

Here, I find McAvoy's Superior the best berry. It is tender, but I am near the market, it don't sour. Picking costs five cents per gallon. We pick six weeks in the best seasons. Iowa and Jenny Lind are earliest, Hudson Bay the latest. The McAvoy will pick four weeks in a good season. Would plant it for one variety close to market. To ship, would plant Wilson's Albany and Longworth's Prolific. Would plant Wilson's Albany on bottom lands, McAvoy's Superior on high ground.

I cultivate in alternate strips, but have beds nine or ten years old with shallow cultivation. Hoe and thin out plants after the picking season, and leave the rubbish on the ground. Go over them again if necessary. In spring, go through and cut out fifteen inch walks, three feet apart.

In preparing ground, I double-plow; after that do not cultivate in the spring, as it cuts off the roots,

which I want as near the surface as possible. I manure with lime, ashes and salt. Haul on the ashes in winter with a wagon. I commenced this nine or ten years ago. Took lime and asher from the lime-kilns, and spread it over the field. The effect on the fruit was immense; on plants but little. I nearly cover the ground with lime and ashes. Put on about two bushels of salt per acre. Have gathered as high as 180 bushels to the acre, but fifty bushels are the average; my plants are mostly in my orchard; the McAvoy does very well in the shade; sometimes I plow up the walk after picking, between the beds running through four or five times, and leaving only about a foot wide in the centre of each bed for a walk the next year. In about a week after plowing, harrow down the plowed ground; mulching causes Mildew in summer; my soil is a clay loam, on limestone bottom; where a large quantity of strawberries are planted no attention need be paid to staminate; when I have staminate I use Iowa May. In planting a bed in a garden would be careful to have staminate. The profit of strawberries has not been great the last few years. I have sold \$10 80 worth of strawberries from an acre; would set out plants early in the spring; don't like fall planting.

Knox, Pittsburg.—My soil is a light clay limestone. I prepare land according to varieties and time that the plantation is expected to remain. For varieties requiring frequent renewal, I plow the ground eight or ten inches deep. For a plantation which is to last ten years, I plow fifteen or eighteen inches deep, and if necessary drain. Stir the ground with the ordinary plow and follow it with a lifter (Mape's Sub Soil, wrought.) Plant the rows 30 inches a part and the plants ten inches in the rows. I have changed, however, in this, and am planting three rows eighteen inches a part and then leaving an alley of two and a half feet. This gives more room for cultivation. Amongst grapes I put three rows of strawberries one foot a part between grape rows eight feet apart. In this last case I let the outer rows produce runners and I have a harvest of plants the first summer. The second crop is of strawberries. The third year the grapes come into bearing and the strawberries have paid for making the vineyard. In cultivating for fruit I allow no runners. I think this essential; I pinch them off; also the fruit stems the first year. Never stir the ground whilst the plants are bearing but let the roots alone. Use only the hoe to chop off weeds not removed by the hand. I think mulching important; I use long rye or wheat threshed with the flail and put on enough in November, lengthwise with the rows, to cover the plants and most of the ground between the rows. This protects the plants and embryo fruit. In the spring I separate the straw from the rows, but let it lie close as a mulch. It keeps the fruit clean, which is essential, and the ground moist, and as it decays furnishes manure.

Great attention should be paid to the adaptation of varieties to your soil. Hovey's Seedling is not good with us at Pittsburg. A variety may run out in a given neighborhood, as Buist's Prize at Pittsburg. Tastes differ, some want sweet others sour berries. We want those that will carry well, that are hardy and lengthen the season. We have succeeded in extending the season from two to seven weeks. We cultivate these varieties:

Early—Jenny Lind; Baltimore Scarlet; Burr's New Pine.

Medium—Triomphe de Gaud; Wilson's Albany; British Queen; Brighton Pine; Cutter's Seedling; McAvoy's Superior; Moyamensing; Scott's Seedling; Vicomtesse Hericourt de Thury; Duc de Brabant; Golden Seeded; Fillmore.

Late—Trollope's Victoria; Kitley's Goliah; Nimrod; Triomphe de Gaud.

The Triomphe de Gaud I regard as best. It is vigorous, healthy, long-stemmed, and abundant bearer, with large berries, through the season, bright crimson, glossy; fine flavored.

I ship to Philadelphia, New York, Chicago, &c. Received fifty cents per quart for Triomphe de Gaud in New York. Select good varieties, handle them well, and you get good prices. It is no matter how much the cultivation costs, provided it will pay. I use boxes of one pint and one quart. Pack the berries into these, and so handle them but once. Pack these boxes in crates of twenty-four quarts or fifty-four pints.

#### RASPBERRIES.

N. J. Colman, St. Louis.—Have tried twenty varieties here, very few succeed. The best for family use is American Purple Cane. Too soft for market. Have another variety, which may be the Red Cane of Cincinnati, which is firm enough for market. It is a red raspberry, and I call it American Red Cap. I preferred raspberries for market, because the price is twice as great.

Doolittle's Black Cap is earlier than the common, and a great improvement. Brinckley's Orange is too tender. Needs protection.

I prepare ground by deep culture. Plant the Cincinnati Red five by two; Doolittle's Black Cap and Purple cane seven by three. I prune in and protect by trellis or wire—put up a post at end of each row, drive a nail in the top of each post, and stretch a wire from post to post. Believe in mulching. Have known red raspberries to sell at 70 cents per quart. Catawissa succeeds well for family use—ripens through September and October, until killed by frost, should be cut down to the ground in spring. Belle de Fontenay grows well and bears not so well.

Knox—Small fruits are made to last much longer than they formerly did. Strawberries, raspberries, blackberries and grapes last with me seven months. Strawberries may be made to yield immense crops. I plant 20,000 plants to the acre, and ought to have one pint per plant, making over three hundred bushels per acre. I think they can be made to produce it. Mr. Fuller says it has produced four hundred.

Raspberries I cultivate. Brinckley's Orange; nothing equals it.

Franeonia—Large, firm and abundant bearear.

Improved Black Capp—Hardy, incredibly prolific, with more juice and less seed than common.

These three varieties represent the three colors, yellow, red and black.

I have procured five French varieties, of which have found two valuable. The first is the Hornet, the largest raspberry I know; red, and an abundant bearer. The second is the Pilate, the same color, not quite so large but bears carriage better.

I think ever-bearing varieties of no account. They are not so good, and there is not so much demand for them.

We should cultivate not what is good but what

is best. Hornet and Pilate are not hardy. I protect by covering with earth. It will not cost \$10 per acre. We don't use the trellis; plant five by two and a half; prepare the ground well, manure well, cut in a good deal. Plant Doolittle six and a half by three. Raspberries bear four or five years; prune in spring. Strawberries are more profitable than raspberries, but the two go well together. I employ two hundred hands picking strawberries. Have employed men, women, boys and girls. A smart boy at a half dollar a day is the best. I don't have them picked by the box. The first thing is to pick the berries well. A smart boy will pick one hundred quarts a day, some 75, and some 50. Blackberries are no more profitable than raspberries.

F. A. Quinette, St. Louis.—I think from here South the raspberry is not of much use. The summers are too long and the winters too soft. I would use only some of the Black Caps. I cut them off at four or five feet high with a sickle, and keep them in the form of a hedge. In the South the plant will bear a few berries, cast its leaves, grow, and so on, and in a few years die out.

Hadley, Collinsville, Ill.—Two neighbors of mine have the Red Cane of Ohio, and have made three hundred per acre at it.

E. B. Colman, St. Louis.—Have Doolittle's Black Cap. Cut back last spring. Bore enormously. The only other raspberry I succeed well with is a Red Antwerp from Cincinnati.

Dr. Long, Alton, Ill.—Have found Franeonia most profitable. Belle de Fontenoy succeeds well with us, and also Ohio Ever-bearing.

Huggins, Woodburn, Ill.—Ohio Everbearing is good for careless people. Like it best. The canes that have survived the winter bear early; the spring shoots in the fall.

#### BLACKBERRIES.

Knox—Cultivate three varieties. The Dorchester is a good berry, valuable for its earliness and sweetness. It is gone before the New Rochelle is ripe. The Thornless is smaller, but beautiful and sweet, variable however, in productiveness; plant 10x5.

Booth—Cultivate the Lawton or New Rochelle; have canes 15 feet high and 1½ inches in diameter. From three rows, 100 feet long, I picked 15 bushels, worth \$4 per bushel; commenced picking the 4th of July and continued until the 15th of August; no Summer pruning.

N. J. Colman—One of our most profitable crops, have somewhat less than half an acre of New Rochelle; sell the berries at 80 cents per gallon; prune them in the Summer season, so as to keep them four or five feet high and shorten in the lateral branches; plant rows 8 or 10 feet apart and plants 2 or 3 feet apart in the row; let them grow into a kind of hedge; have the best soil, rich and deep, do not cultivate; cut off suckers with hoes; do not mulch, but think well of it. Have not manured as yet: put very little work (not two days in all) on the whole patch the last year.

Hadley—Have a dozen plants that bore last year profusely. Topped them at five feet high the Summer before, and shortened in the laterals in the Spring.

Mason—Planted two acres two years ago, part of them in an orchard. In the orchard they were three times as productive. Think growing a single cane the best method. Regard cultivation of black-

berries as equally expensive with grape culture, but think it will pay.

Pettingill—Have 1-25 of an acre in cultivation, 6 years planted; ground has never been stirred, but heavily mulched. Got 10 bushels of blackberries and 100 gallons of wine from the patch.

Dr. Warder—Every blackberry country has blackberries as good as the New Rochelle. Mr. Orange, near Albion, in Southeastern Illinois, has several wild varieties, some of a light color in cultivation.

Quinette—With me, wild blackberries run to wood.

N. J. Colman—So with me.

Woods—And with me.

Quinette—The blossom of the wild blackberry when cultivated is defective.

Allen—I had a row of wild blackberries, not cultivated that have borne largely. Varied a good deal in character. Were good, bad and indifferent. Dug them up to make room for the Lawton, but the change was no improvement.

#### CURRENTS.

Booth—Have not had much experience. The cherry is a fine large currant and bears well. Is full when there are no Red Dutch. The next best that I have is the White Grape. Plant in rows six feet apart and use the cultivator between. Think mulching would be better. Grow in bush form in preference to tree shape.

Dr. Long—Have raised currants a good deal and find they will pay well. Must be kept clean and growing. I set them six by two. Prefer the bush form. Like the common Red best, Red Dutch next. Cherry, White Grape and Victoria are all good. I set out the cuttings when two years old, cultivate with plow and manure with chips, ashes, lime, &c. Mulch in June with straw, cornstalks, &c. Ridge up the rows before mulching, so as to get the surface soil to the roots. The bushes bear best among trees. Ship currants, when ripe, in ordinary peach baskets. Get into Chicago about two weeks before they are ripe there, and they will bring about \$4 50 per bushel.

Pettingill—The cherry currant is not a rampant grower, but is much more prolific than any other currant with me. For wine, Victoria will be one of the best, and also Knight's Late Red.

Knox—Have planted cherry, Victoria, short-bunched red, white grape, &c. Am trying Versailles and others. I manure with well-rotted manure on top, plant four by five, trim closely, and so get good fruit. Have had cherry currants two inches in circumference. Victoria has fine bunches.

Pettingill—All who want to set out small fruits, should set them out in the Fall or Winter in the mud.

Warder—The raspberry and blackberry, as well as currant, should be so treated.

Dr. Long—Like Spring planting best.

#### GOOSEBERRY.

Knox—It does not mildew with us, perhaps on account of the coal smoke around Pittsburgh. The American Seedling does the best with us, is sweet and good, about the size of Houghton and of a green color when ripe. Is not the pale red.

Warder—What is the best time to cut and put in cuttings?

Sanders, (St. Louis)—Cut them off in the fall and plant as soon as early spring. If they are set

in the fall, mulch them or bank them up. If the ground is dry enough put them in at once.

Dr. Long—What gooseberry will pay?

Dr. Warder—Houghton's Seedling and the pale red *did*, at \$2 and \$3 per bushel. For the last two years they have not paid at Cincinnati. So at St. Louis, said some.

McPherson, (St. Louis county)—Houghton has mildewed with me the last two years.

N. J. Colman—It is in a pocket in the woods and there is no circulation of air there. I have never had mildew.

McPherson—They mildewed on an open hill the same way.

Huggins—Have not found them profitable at \$2 per bushel.

N. J. Colman—They are profitable with me. Sent some by express to Chicago and furnish many for this market, and make money. Take but little care of the bushes.

#### DR. WARDER'S ESSAY.

Dr. Warder's Essay on Propagation we have taken notes of, but they fail to do it justice. The laws of vegetable growth, upon which the various methods of propagation are based, and their application to each, were discussed in some detail, to the great edification of an interested auditory. His extempore lecture on phyllotaxy also disclosed some beautiful facts in the order of the vegetable world.

#### MR. HUGGIN'S ESSAY

on timber trees was also a valuable production. Mr. Huggins recommended the following trees:

*Deciduous*—Oak, white elm, red elm, deciduous cypress, larch, tulip tree, black walnut, butternut, sugar maple, red maple, silver maple, golden willow, white willow.

*Evergreen*—White Pine, Norway Spruce, Red Cedar, White Cedar.

#### PAPER BY DR. CLAGGETT.

Dr. Claggett read a very interesting paper on some experiments made by him during the past season. From May until September he peeled a ring of about four inches of bark from limbs of trees and watched the result. All peeled before the 9th of June died. Those peeled on the 9th of June made a partial deposit on the peeled surface. Those peeled on the 16th and 23d of June covered the entire peeled surface with a new coat of bark. That peeled on the 28th of June made a partial deposition of bark the heaviest next the trunk. From the 4th of July until August 8th, inclusive, there was no deposit of bark. From the 15th to the 25th of August the peeled surface healed, but not so well as in June. When the wounds healed, there was a suspension of growth at the ends of the branches of the trees. Where there was no branch near the lower part of the peeled surface no deposit was made from below, but all from above.

Dr. Warder pronounced this a very interesting experiment. He noticed that where the ooze had been apparently scraped off in removing the bark, there was no bark formed anew. The dates of course would vary in different years.

E. B. Colman was glad that the Doctor had demonstrated what he believed to be the right time for pruning, viz: from the 15th to the 25th of June.

Dr. Long was also glad to hear the elucidation. Had himself pruned in June for fifteen or twenty years.



## OFFICERS FOR 1863.

President, Henry T. Mudd, St. Louis; Vice Presidents, B. F. Edwards, St. Louis, Missouri; George Husmann, Hermann, Missouri; O. H. P. Lear, Hannibal, Mo.; Isaac Snedecker, Jerseyville, Ill.; William Hadley, Collinsville, Ill. Corresponding Secretary, L. D. Morse, Allenton, Mo. Recording Secretary and Treasurer, Wm. Muir, Fox Creek, Missouri. W. C. FLAGG.

We are under many obligations to Mr. F. for this excellent report.—Ed.

### Hardest Varieties of Native Grapes for Culture at the North.

FLUSHING, N. Y., Feb. 20, 1863.

*M. L. Dunlap, Esq., Champaign, Illinois:*

DEAR SIR: I now send you a descriptive list of the varieties of the Grape as are well suited by their hardihood and earliness to succeed in your State, and in all the coldest regions of our country. Many hardy Fox and other varieties are omitted on account of their inferiority or worthlessness.

WM. R. PRINCE.

T denotes table or eating grapes.

W denotes those best for wine.

T & W those suitable for both.

Ariadne, T and W—Above medium, purple, fair for table and fine for wine.

Alvey or Hagar, T—Black, very good and greatly esteemed.

Adirondack, T and W—Dark, soft pulp, juicy, no sweetness nor aroma, but little flavor.

Albino, T—White, very good for table.

Alexander, T and W—Black, fair table, fine wine.

Ariadne, T. & W—Black, sweet, fine wine.

August Coral, T—Red, very early, honied sweet, estimable.

Baldwin—See York Madeira.

Black Guignard, W—Makes superior black wine.

Black King, T and W—Early Small, good.

Bowman T—Dark purple, quite early and very good.

Black Imperial, T—Earliest black, very large and sweet, estimable.

Braddock—Very early, purplish, sweet, good.

Carter's Favorite—Black, fair table and fine wine.

Canby's August—See York Madeira.

Catawissa or Creveling, T—Black and earliest and finest market berry.

Clinton, T and W—Black, very early and fair table and fine wine.

Cassady, T—Greenish white, sweet and very good.

Concord, T and W—Black and large and very good, fine for wine and hangs long.

Coriell, T—Very large and deep purple, excellent.

Cunningham, T and W—Black and small, excellent.

Early Amber or Northern Muscadine, (Shakers) T and W—Dull amber, rather sweet, somewhat foxy, but little flavor and drops off.

Elizabeth or Hart's White, T—Dull white, sweet and estimable but very variable, best in dry soils and makes weak wine.

Elsenburg, T and W—Black, early and small, sweet and excellent.

Empire, T—Dark, very large and sweet at maturity, hangs long and improves.

Eugenia, T—Black, early, sweet and good.

Franklin, T and W—Dark blue medium, early and sweet, good strong grower.

Golden Clinton or White King, T—Yellowish and small, mild acid, pleasant

Gridley, T and W—Purple, small and round, quality like Clinton.

Hannah, T—Dark purple, beautiful, sweet and very good.

Holmes or Fox, T and W—Purple and large, good for wine and preserves.

Hartford Prolific, T and W—Black and large, very early and very good, in some soil drops early and in some not.

Kilburn and Kitchen or Fox, W—Black and large, good for wine and preserves.

Labe, T—Black, large and very good.

Lake's Seedling, T—Black, large and early and very sweet.

Logan, T—Dark purple, early and quality like Isabella.

Marion Black, W—Very black and round, early and astringent dark juice, makes good wine.

Marion Purple, T and W—Deep Purple, ovate, quality of Isabella, but much earlier.

Mayam, T—Black, large and early.

Monteith, T—Dark, early, medium and sweet.

Miles, T—Black and very early medium and pleasant.

North America, T and W—Black, Large, early and sweet.

Norton's Virginia, T and W—Black, small and early, good table when matured, very superior for wine, heavy crop and hangs long.

Narcisse, T—Very dark, large, very sweet and delicious.

Oporto, W—Black, medium, dark colored stringent juice, makes wine like Port.

Osmond, T and W—Dark, medium and very good.

Osmond, T and W—Dark, medium, very good.

Perkins or Fox, T—Bronze red, very large, early

and beautiful, some foxy aroma, good at maturity.

Pond's Seedling, T and W—Blue, small, round and pleasant.

Potter, T—Dark Amber, very large and somewhat foxy, sweet and pleasant at maturity.

Ransdell or Fox T—Dull red, large, very early, pleasant at maturity.

St. Catherine, T—Purplish red, large, juicy and delicious.

Swatara, W—Blue, early, small, very good wine.

Shurtleff, T and W—Black, small, sprightly flavor.

Taylor's Ballitt, T—White, early, small, sweet and excellent.

Troy Hamburg, T and W—Dark Purple, large sprightly, similar to Isabella, nearly equal in quality, but earlier and more hardy, has produced 20 bushels on a vine, very valuable for the North.

Tryon—See York Madeira.

Warren's Catawba, T and W—Bronzed, quite large, early and very sweet. Makes delicious aromatic wine.

Warren's Seedling, W—Black, thick bloom, makes dark wine and hangs very late.

White Globe, T—Bronzed, large and musky, sweet, hangs long and improves, valuable.

White Isabella—See Elizabeth.

Winslow, W—Black, small and early, same type as Clinton and good for wine.

Wyoming—Dark blue and very early, sweet and good.

Wellington, T and W—Small and hangs late, clusters large, becomes juicy, sweet and pleasant.

York Madeira, T and W—Black, medium and very early, sweet, juicy, and fine for wine.

[Our readers are under obligation to Mr. P. for other valuable lists of fruit, and we hope they will be benefitted by the information. A life-long experience added to that of his father, the oldest nurseryman in the United States, has given him opportunities that few can boast. Mr. P. is a close observer, though barring a difference of climate, some of his recommendations may not prove correct, yet in the main, we have no doubt that he will be found a safe guide to follow.—Ed.]

Condensed from the Ohio Farmer.

### Ohio Pomological Society.

The meeting of this Society, at Columbus, February 11th and 12th, was quite well attended, considering the times—especially by nurserymen, nearly all parts of the State being represented.

NORTHERN SPY.—Specimens from various persons, all showing a tendency to excess of size and proportionate loss of flavor and of keeping quantity as compared with its New York habit. Much complaint was also made of the tardy bearing of

the trees, and the falling of the fruit before maturity. Still a majority of those who had tried it thought well of it, and seemed to think its habits would improve by age. It could not be relied upon as a winter variety in Southern Ohio.

WHITE PIPPIN.—Specimens by R. Buchanan, of Cincinnati, and Batcham, Hanford and Co., Columbus. This apple is everywhere gaining friends as it becomes known. Mr. Buchanan says he considers it the most profitable of all winter apples for his locality.

—One of the best in this State.—ED. ILL. FARMER.

WHITE WINTER PEARMAIN.—Fine specimen, by W. E. Mears, of Clermont county; better than ever exhibited before to this Society, and proving the variety worthy the high reputation it sustains in many parts of the Southwest.

### DISCUSSION ON GRAPES.

In reviewing the Catalogue, the following remarks on grapes occurred, which may be of interest to the general readers:

CATAWBA.—Dr. Taylor said was doing well generally, around Cleveland—did not always ripen, but was accounted valuable. Mr. Harrison said the same as to Lake county. Mr. Plessner said it was not reliable at Toledo. Mr. Scott said it was generally approved along the Maumee, a few miles above Toledo; better than the Isabella. Edgerton and Marshall said it was not very reliable in the Eastern counties; still it ripened well in good seasons, and in favorable localities, so that people would have it. Mr. Campbell said it did often ripen well at Delaware; could not recommend it for open culture. He thought the climate of this locality was somehow less favorable for the grape culture than most might expect from its latitude. The season is too short on account of late frosts in spring and early frosts in autumn; hence no grape is of value there for open culture which requires as long a season as the Catawba. Mr. Batcham said there were a number of small vineyards of the Catawba around Columbus, and the crops generally ripened well, but were sometimes injured by the rot. He considered the variety as reliable as most others, and valuable.

CLINTON.—Approved as a hardy, early, and productive variety, especially at the North. Dr. Warder likes it at the South, for variety, and makes a rich red wine.

CONCORD.—First rate North, East and Central; quality of fruit not best, but handsome and good, very productive and profitable. Dr. Warder said it was not good enough for table, at the South, but profitable for market.

CUYAHOGA.—Dr. Taylor said he had seen this fruit in perfection only one year, then thought it the best of all grapes—other seasons not first rate; vine seems hardy and a good grower. Mr. Harrison had seen some mildew on it at Painesville; fruit not often perfect; not fairly tested South. "Coleman's White," of Cincinnati, is the Cuyahoga.

DELAWARE.—Everywhere first rate; complaints still made of slender growth of vine; the people learn the art of cultivation. It was stated that a

portion of Mr. Mottier's vineyard of Delawares, was planted with vines grafted on one year old Catawba roots, thus securing a better growth than is usual with plants on their own roots.

**DIANA**.—At Cleveland, Dr. Taylor said, it was too variable and uncertain, seldom ripened well. Mr. Plessner thought it ripened earlier than Catawba, at Toledo, but vine was tender and crop not certain. Mr. Campbell said it did not ripen well at Delaware in open ground; but as well as Catawba, perhaps a little earlier; vines had been sold from Cincinnati for Diana which were spurious and inferior fruit and more foxy and apt to crack and fall before ripe. Mr. Harrison said some of the same kind had been disseminated as Diana, in Northern Ohio.

**HARTFORD PROLIFIC**.—Generally approved at the North, as a hardy and reliable grape; quality not very good. Mr. Campbell don't like it; thinks *Creveling* a much better grape, equally hardy, early and reliable.

**ALLEN'S HYBRID**.—Mr. Campbell has fruited it, and thinks highly of it. Others present had not had it bear, but had heard good reports of it.

**LOGAN**.—Mr. Campbell and others testified that it was not much known, and did not seem to possess sufficient merit to warrant commendation.

**NORTHERN MUSCADINE**.—Generally condemned as not worthy of cultivation. Allusion was made to the commendation bestowed on it by Dr. Kirkland, but it was stated that Dr. K. had disclaimed the recommendation which had been attributed to him by some peddler of the vines.

**REBECCA**.—Complaint was made of this variety that the vine was a poor grower, and not quite hardy; fruit very good, but not much of it. Mr. Campbell and Mr. Buttles said they had found as the vines increase in age they improve in vigor, hardiness and productiveness; thought it desirable for amateur culture.

**TO-KALON**.—Mr. Campbell had fruited two years, and could not recommend it.

**UNION VILLAGE**.—Taylor, Campbell and some others, like it, as a large, showy fruit, of fair quality, though not quite hardy. Warder, Bateham and others, regard it as too deficient in flavor, and vines too rampant, needing too much space for the amount of fruit produced.

**SETTING OUT CUTTINGS**.—We can now begin to set out under glass the cuttings of grape, raspberry, blackberry, &c., with a view to give them an early start, and for transplantation as soon as there is no danger from frost. Do not commit the accustomed blunder of setting them too closely, so that in removing one, another will be disturbed. We know that nurserymen stick as many in a given space as possible; but we are not giving instructions to them. We should prefer each cutting to be set in a small pot, under glass, with a little bottom heat to start with. They can then be transplanted without any difficulty.

**CHERRY GRAFTS**.—The most difficult scion to make grow is that of the cherry. We have employed experienced grafters—distrusting our own skill, to grow cherry scions, and on one occasion not one grew in the lot, some twenty-five in number.

We have succeeded ourselves in two out of three; but this is not enough where persons have only a few stems to operate on.

The want of success is to be ascribed to two causes. The first is a lack of care and good tools in setting scions; but the second and principal is the late period at which the scions are cut. When the cherry bud is once swollen, it is very difficult to get it to grow. They should therefore be cut before there is any sign of swelling—and that time is now, and generally during this month. They should be buried in the ground deep enough to be beyond the influence of the sun, whence they can be taken out and used when needed throughout the grafting season. Some persons, we know, preserve grafts of all kinds in ice-houses, cellars, buried in sand, or tied up in a moss, &c., &c., and these modes may answer very well; but in our experience we have found that they keep nowhere in so good a condition as when buried in the ground as we suggest. This is also true of grapes and other cuttings.—*German town Telegraph*.

—With regard to the cherry our Dutch cotemporary is laboring under a slight mistake. The cherry can be as successfully grafted as the apple. It will not materially injure the scions to have the buds slightly swelled, but better without, as to the late grafting that is all bosh, as we graft until in full leaf, but the secret lies in cutting instead of splitting the bark; that's what's the matter.—Ed.

### Dwarf Apple Trees.

*Editor Prairie Farmer:*

As the tree peddlers are around again in this vicinity, selling dwarf apple trees, as being the thing for the prairies, I wish to inquire through the columns of your widely read paper, whether any one who has had them ten years on the prairies, can recommend them as being nearly as profitable for growing fruit as standards.

I have had them for a longer time, and would not take one hundred of the best dwarf apple trees I ever saw, as a gift and plant them in an orchard for growing fruit to sell.

In a small city lot, having room only for a little bush, they are often desirable, but are short lived at best.

SAMUEL EDWARDS.

LA MOILLE, ILL.

—We put the above on record to confirm what we have often said in regard to the dwarf apple trees on the prairie. The tree peddlers are flooding the country with thousands of worthless trees, recommending them for orchard purposes, a base swindle on the credulity of the farmers, for we do not believe that there is a nurseryman or tree dealer, but who knows that for an orchard they are of no value. If people want trees that will bear in a short time, let them buy low headed trees of such varieties as Keswick Codlin, Coopers Early White, Yellow Injestrise, Snow, Ramsdells Sweet, and Stannard, which will distance the same varieties on Paradise or Doucin stocks. We suppose humbugs must have their day, but we submit that this dwarf apple has had all that it is entitled to at the hands of old fogies.—Ed.

## Domestic Economy.

**PLUM PUDDING WITHOUT EGGS.**—One cup of molasses, one cup of milk, one pound of raisins, chopped, one teaspoon of soda, one teaspoon of powdered cloves. Mix with flour about as stiff as pound cake. Melt half a cup of butter and stir it in. Steam in a dish over boiling water four hours, and eat with a hot sauce.

**BOILING POTATOES.**—There are many ways of boiling potatoes, but only one best way, and this is the formula: Let each mess be of equal size. Let the water boil before putting the potatoes in. When done, pour off the water and scatter in three or four table-spoonfuls of salt; cover the pot with a coarse cloth, and return it to the fire for a short time. In five minutes take out and serve. Watery potatoes are made mealy by this process

**A PLAIN CUSTARD.**—Boil a quart of new milk, keeping out a little to mix with two table-spoonful of flour: thicken the boiling milk with it, let it cool a little, then add two eggs well beaten; sweeten and flavor with lemon or nutmeg, and bake in a little deep plate, with a crust; or, if preferred, after the eggs are added, it may set on the fire, and stir till the egg is turned, but not let it boil; then sweeten and flavor it, and dip it in cups to cool and use.

**A PLAIN PUDDING.**—Two ounces of whole rice not ground, first boiled in water and then in milk till tender. Well grease a pie-dish, and have ready beat up six eggs, some sugar and milk (the milk should be boiled and allowed to get cold.) When the rice is done pour it into the dish, stir the eggs, etc., into it, beat it all up. A small piece of butter to keep it moist. Add milk to fill the dish, sweeten to taste, and grate nutmeg over it; bake three-quarters of an hour. This is a good wholesome pudding, inexpensive, delicate, and very nice.

**VINEGAR RECIPE.**—A correspondent of the *Scientific American* says: "To one gallon of soft water, add a pint of sugar, or sorghum molasses, stir all well, and then add nearly a gallon of tomatoes, fresh and ripe. Then set the vessel aside, and in a few days you will have the sourest pickles I ever tasted, and nearly the best vinegar."

**DUMPLINGS.**—In boiling dumplings or any kind of paste, the cover should never be removed, nor the water allowed to cease to boil until the paste is done, when it should be taken off before it becomes soaked and heavy.

**POTATO CRUST.**—Par-boil and mash twelve potatoes; add one tea-spoonful of butter and half a cup of milk or cream. Stiffen with flour until you can roll out.

**GINGER SNAPS.**—Beat together half a pound of butter, and half a pound of sugar; mix with them half a tea-cup full of ginger, and one pound and a half of flour.

**HAIR OIL.**—The best hair oil is made by mixing high proofed alcohol and cold pressed castor oil. These ingredients are the base of all the celebrated hair oils.

**TO MAKE LEATHER WATER-PROOF.**—The following recipe for making boots and shoes water-proof, is the best thing that I have ever tried. It also improves the leather, and is also the best thing for rough or sore hands, caused by binding wheat or husking corn: Take one ounce of the balsam of Copavia and one ounce of beeswax, melt together and apply warm; rub it with the hand. It has only to be tried to be appreciated.—*O. Judson in Country Gentleman.*

**TRIAL OF IMPLEMENTS.**—The trial of Implements will be held the week previous, near the Fair Ground, commencing on the 21st Sept.

The Macon county Fair Ground is one of the best in the State, and has one indispensable requisite, water in abundance.

A small stream runs through the grounds, and one of the best springs of pure water pours out its crystal draught at the foot of a huge oak, in such supply that none need go away thirsty. We look upon this as most fortunate, for though "Big Muddy" was great on ponds and duck-shooting grounds yet good drinking water for man and beast was about out of the question. The officers of the Macon County Agricultural Society are an energetic set of men, as well as the citizens of Decatur, who will do all in their power to make the Fair a success. The Fair Grounds are located about one and a half miles west of the depot, and near the line of the Great Western railroad; and it is more than probable that a side track will be put in to accommodate stock and passengers the facilities to reach the grounds would otherwise be inadequate for that purpose.

We also learn from the Secretary, Mr. J. P. Reynolds, that the Railroads will transport all articles and animals free, and passengers at half price.

Decatur is nearly in the centre of the State at the crossing of the main line of the I. C. R. R. with the Great Western. This latter road will have the most onerous part of the business to perform, but as the officers are among the best railroad men in the State, and have had a previous experience of the kind, there need be no anxiety that the business will not only be properly but promptly attended to. The cars of the I. C. R. R. can also be unloaded at the Fair Grounds over the track of the Great Western, which is of the same gauge. We know of no location outside of Chicago better adapted to holding the Fair than this. Closely sheltered grounds; ample supply of pure spring water; railroad track to the grounds, and a live set of men to look after the good name of their county.

**STATE FAIR.**—The next State Fair is to be held at Decatur, commencing on the 28th of September, and holding through the week.

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, APRIL, 1863.

From this time forth until late in Autumn both readers and editor will be busy, very busy from the many new demands imposed on both, from the absence of the usual labor. Scarcely a family but some member of it is in the army, while laborers are in the same business, and those at home must bestir themselves to take care of the usual farm work, giving little time for new improvements, for which we must patiently wait for better times.

THE CULTURE OF COTTON is now becoming one of the regular crops in all that part of the State South of the Great Western Railroad, and small patches will be planted North of that point. In our visit to the cotton regions of Alabama and Mississippi last season when the crops were being worked, and from a seasons trial on our own grounds, we feel quite competent to give instruction in regard to the culture of this now important crop. In the first place any good corn land is suitable for cotton, whether high and rolling or bottom land. All that is required is that water must not stand on the surface or so saturate the soil to retard the growth.

The preparation of the soil is the same as that for corn so far as the plowing is concerned, though doubtless subsoiling would be of great advantage to it, allowing the long tap like roots to penetrate more freely.

After plowing, the surface must be harrowed so as to level it, when it is ready for marking off. This can be done with the common corn planter or marker, making the rows about three feet and eight inches wide. In these drills the seed is to be sown. The seed should be planted in abundance, as there is always a large percentage of loss of the young plants by insects and other causes, hence the necessity of thick seeding. The plants are thinned to six to twelve inches apart in the drills, some planters say two to three feet on rich bottom land. The close planting has a tendency to dwarf the plant and by diminishing the growth of the stalk and the size of the bolls, the crop will mature earlier, and though the bolls are smaller, they more than make up the deficiency in number.

The seed must not be deeply covered, nor will it answer to have the surface cloddy. If the seeds

are deeply buried they will rot, and if planted shallow in a dry soil will not germinate. To avoid these two difficulties, the field roller must be called into requisition to pulverize the clods and to press the soil so close to the seed that moisture will be insured in all cases. After sowing the seed in the drills it can be covered sufficiently deep, by giving the whole field a thorough harrowing with a two-horse harrow, the roller is then passed over it. We could see no difference in the germinating of the seed whether it was covered half an inch deep, or only pressed into the soil with the roller, while little of that planted deeper came up at all. As cotton must be planted very early in this State to insure a good crop, and as the ground is then cold, it will not answer to plant deeply, as warmth and moisture are both essential to the germination of the seeds. Farther South deeper planting would answer, for there the ground is pretty well warmed up at the time of planting.

All crops grow better under shelter from the winds than when fully exposed to currents of cold air, but cotton, unlike tobacco, needs no more protection than corn, as the only effect would be a less vigorous growth, while tobacco is injured by the winds fretting or breaking the leaves. There is little danger of loss of the cotton at the picking season from free exposure to the wind, hence this crop can be planted on the open prairie.

The young plants make but slow progress for the first few weeks, and in weedy land the weeds would make bad work with the crop; to avoid this, scraping as it is called at the South, is resorted to. This is simply hoeing and scraping away the weeds from each side of the row, but with our double shovel plows or two-horse cultivators this scraping is not required, and all that is required of the hoe is to thin the plants and to cut out the weeds along the row. It is probable that topping may be found of advantage in hastening the maturity of the crop.

Cotton is a perennial plant and continues to send out new blossoms while the buds are forming and ripening, thus like the Orange presenting ripe fruit and blossoms at the same time, for this reason topping may insure the full development of the bolls if no new sets are allowed to form, and thus compel the plant to adopt the habits of an annual.

CULTURE OF THE SWEET POTATO.—In 1844 when we set the first plants of the sweet potatoes that had found their way to the North, the scheme of growing them was looked upon as akin to sugar growing at the North, and about as chimerical, but now the planting of the sweet potato in all parts of the State and the growing of sugar from a Southern cane are both veritable facts. It is true



that the yam and other large varieties of the sweet potato can not be grown to advantage, but the selecting of such early sorts as the Nansemond will and do succeed, and now become one of the staple products of the garden.

The Louisiana sugar cane can not be grown here but the dwarf varieties, such as the Imphee of Africa, and the sugar beet, will make the country teem with its sugar mills, skill in culture and a wise discrimination in the selection of varieties will do much to place the labor of the Northwest on a par with the more genial skies of the South. Again, by a judicious selection of seed, planting the well ripened tubers of the Nansemond year after year, has been another step in the ladder of progress. Mr. J. W. Tenbrook, of Rockville, Indiana, the acknowledged King of sweet potato culture, has built up his reputation on this great principle of improving the plants of the North, especially those of a more Southern origin. We attribute much of our success in having the advantage of his improved seed. Those who are in want of seed or plants should apply at once, as we learn by a letter from Mr. T. that he will not be able to supply the demand.

In the culture of the sweet potato, the ridge system is the most common, but we begin to suspect that large round hills are the best in this latitude, and we especially call attention to the fact that our cultivators may give this mode a thorough trial the coming summer. The rows should be four feet apart and the hills about three; one plant in a hill will be sufficient. In this way thirty-five hundred plants will be sufficient for an acre. The hills can be made the last of April, but the plants should not be set until after all danger from hard frosts is over, say the 10th of May. At the time of setting, the hills should be dressed over by hauling up a little fresh earth to enlarge the hill and to kill the young weeds that will at that time begin to show themselves.

By making the hills in advance of the time of planting, the soil will become more friable, compact and warmed up by the sun, and in condition to give the plants a more vigorous growth. This we think will add at least one fourth to the crop and make them a week earlier at least.

The sweet potato is one of the most valuable substances with which to adulterate coffee, giving it a rich creamy taste, without any deleterious effects like many other drugs now used. The small potatoes are used for this purpose, costing only the labor of picking up and drying.

**COAL MINING.**—At a Convention of the coal operators of Illinois, convened in Chicago on the 18th

of February, 1863, Col. E. D. Taylor was appointed Chairman, and Major J. Kirkland, Secretary.

Major Kirkland, Mr. Mason, and Mr. Galloway, were appointed a committee on resolutions. The committee reported the following preamble and resolutions which were unanimously adopted.

**WHEREAS**, The coal miners of Illinois, or a portion of them, have, within the past year, conspired to control each other and their employers as to wages, as to the management of mines, as to the individuals to be employed or discharged, and as to the amount of coal to be produced daily; and,

**WHEREAS**, The effect of the secret society formed by the miners, has been to enhance exorbitantly, the price of coal all over the State, while lessening the quantity produced in proportion to the demand, and

**WHEREAS**, The history of other mining communities, and the experience of our own, have proved that such a course, if encouraged by submission on the part of the operators of coal mines, leads to the injury of the public, the ruin of the coal operators, and the impoverishment of the coal miners themselves; therefore,

**Resolved**, That the coal operators of Illinois here represented, will not, after the first day of April next, acknowledge or deal with any association of miners whatever but will hire and discharge persons as the exigencies of the business and the conduct of those individuals may compel them to do, paying their employees such wages as the market for coal may authorize, making such arrangements of their mines as they may consider best adapted to the work, and leaving to each of those employees the right to quit their service whenever it may be his interest or his desire to do so.

(Signed.)

Northern Illinois Coal and Iron Company, E. D. Taylor, La Salle.  
Chicago and Carbon Coal Company, J. Kirkland, Danville.  
La Salle Coal Mining Company, J. J. Page, La Salle.  
Kewaunee Coal Company, J. J. Galloway, E. Beadle, Kewaunee.  
Coal Valley Mining Company, S. S. Guyer, Rock Island.  
Morris Coal Mining Company, A. Crumb, Morris.  
Danville Coal Mine, Donlon and Daniel, Danville.  
Kingston Coal Company, S. Gilfoy, Kingston Mine.  
Du Quoin Coal Mining Company, C. A. Keyes, Du Quoin.  
Peru Coal Mining Company, J. J. Page, Peru.  
Morris Coal Company, Thomas Turner, Morris.  
Washington Coal Mines, Goalby and Bros., Belleville.  
Telfer Mines, A. G. Warren, Morris.  
Union Mines, A. W. Telfer, Morris.  
Peoria Coal Mines, N. Funk, Peoria.  
Alma Mines, J. Garside, Belleville.  
Kickapoo Mines, Wm. Rutherford, Peoria.  
Carbondale Mines, Kasson and Co., Belleville.  
Wenona Mines, Thompson and White, Belleville.  
Eureka Mines, Wm. Haight, Belleville.  
Wilson Mines, James Wilson, Belleville.  
Illinois Central Iron and Coal Mining Company, A. W. Nason, St. Johns.  
DuQuoin Centre Mine, F. Priest, Du Quoin.  
Neelysville Coal Mines, T. Hollowbush, Neelysville.

We are glad to see an end to this swindle in coal trade, alike damaging to the miner and the consumer. We shall now look forward to more regular prices and steady supplies of this now important product. Coal to the farmer is becoming a necessity, and enables him to give more attention to his other farm work. We know that an abundance of good coal puts the good wife in better humor with herself and the rest of mankind.

**PRUNING SHEARS.**—For the past three years we have used pruning shares of cast steel, cast in iron molds, which are strong and make a smooth cut, and work easy. For the pruning of roses, the cutting back of raspberries, gooseberries, etc., they are almost indispensable. They can be had of Hovey.

RARITAN, HENDERSON CO., ILL., }  
March 7th, 1863. }

*To the Editor of the Illinois Farmer :*

SIR:—Yesterday I obtained a copy of your paper for examination, and as I find it pretty well adapted to the farming and horticultural operations of the West, have come to the conclusion that I can do better with than without it, and accordingly enclose you herewith seventy-five cents, which I believe is the price where two or three copies are sent in a club. If I might be allowed to criticise the paper, or offer a suggestion, it would be simply, first rate, give us more of the same kind, by reducing the size of type in the first pages.

The articles on white willow, flax, cotton, tobacco, sorghum, &c., are very opportune and will be read with interest, as also whatever pertains to horticulture and domestic economy. Hoping that your circulation may so increase as to induce a semi-monthly or weekly issue, that it may promote a spirit of improvement among our Western farmers, fruit-growers and nurserymen.

I am respectfully yours, &c.,

A. HAGEMAN.

P. S. As my object was mainly to send for the paper, (and not remembering that the editor resides at a distance from the office) I will direct this to the publishers.

The publishers are being gratified with numerous letters of the same import, which are good to have in a financial point of view, as well as an appreciation of their efforts to send out a valuable paper. Without any effort on their part, which their other and more pressing business has prevented, —without any blowing or posting they are gratified to know that the ILLINOIS FARMER is gradually

working its way to public favor, and fast becoming an indispensable aid to our rural population. Clubs of twenty with one to the getter up of the club are coming in from Egypt and the central counties, and we hope soon to be able to enlarge the paper or make it a semi-monthly. Many of the friends of the FARMER are urging the latter.

**DUPAGE COUNTY NURSERY.**—We take pleasure in calling the attention of tree planters to the card of this old establishment. This is one of, if not the largest nursery in the State, and in European evergreens will compare well with any in the country, Messrs. L. & Co. having imported directly from Europe. The immense stock of Silver Maple seedlings will be found valuable and should find a ready sale for shade and timber trees on every farm. Great attention has been given to the ornamental department, and the stock is not only large but choice. The greenhouse has been in charge of one of the best propagators for some half a dozen years. The ground being rolling and well drained the stock is well grown and healthy, and as great pains have been taken to insure correctness, purchasers will be well assured of getting what they order.

Those wishing to order from this or any other large nursery, should do so direct unless they know for a certainty that they are dealing with a genuine responsible agent. In this case it is not sufficient to take the word of these gentry as they often represent themselves as agents when they are no such thing.

**STATE HORTICULTURAL SOCIETY PROCEEDINGS.**—This work is nearly ready for delivery, and every person owning a farm or garden spot upon which to plant a tree, should at once send for a copy. It will embrace discussions of fruit and ornamental trees, plants, shrubs, flowers and vegetables, and how to cultivate them.

The transactions will include the operations of the society for the past two years, and is rich in practical horticulture in its various departments, including essays on kindred subjects. Much of the matter is new and cannot be obtained from any other source, and will repay many times its cost in a single year. In regard to varieties and modes of orchard culture it is invaluable; send for a copy. Address O. B. Galusha, Lisbon, Kendall county, Illinois, inclosing 45 cents the cost of the work. Mr. G. is the late president of the society and chairman of the publishing committee.

**THE PRAIRIE FARMER.**—In another place will be found the consolidation with the Farmer's Advo-

cate, and in the advertising department the prospectus of this old and well established weekly agricultural journal, published at the commercial metropolis of the North-west, it has eminent facilities for usefulness, and should be found in every farmer's family. It is not devoted wholly to the farm economy, but has a home department that makes it desirable at the fireside. Many think a monthly too slow for their use, but for a strictly agricultural journal we think different. It is not probable that a strictly practical agricultural journal could be sustained, at the west if published weekly, while at the same time containing news and other reading with a large amount of matter it can be very easily done. We therefore commend the *Prairie Farmer* to our readers, and to make it more of an object will club it with the *Illinois Farmer* at \$2.

**SUGAR FROM THE BEET.**—No inconsiderable interest is being taken in the culture of the beet root for the manufacture of sugar. A pamphlet is before us on the subject, written by John H. Klippart, and reprinted by the Illinois Central Railroad Co., for distribution, copies of which can be had of the office at Chicago or the agents of the road, or we can supply a number ourselves.

We have considerable faith in the enterprise, from the fact that the parties in Chicago who experimented with the beet last year are going largely into its culture this season. There will be planted several thousand acres the present spring. On one farm we hear that the works are well under way to work up the crop of three or four hundred acres. These works will cost some \$20,000. Several others are contemplated; and a refinery is also to be put up in some part of Central Illinois probably at Champaign, to clarify the sugar and to distil the molasses, which is only used for that purpose.

All persons intending to plant the beet should send for the pamphlet in which they will find the whole subject fully discussed.

As a farm crop for milch cows the sugar beet is the most valuable of anything that we have grown, and at the same time the most profitable. We have grown and fed several thousand bushels of beets within the past twenty years, and have always found them a reliable crop; much more so than the turnip, which is quite unreliable, though often producing heavy crops.

Send for the pamphlet at once. Seed can be had of A. H. Hovey, Chicago.

**FLAX COTTON.**—The Legislature of New York of-

fered two thousand dollars or any part of it for improvement in the above, but the committee, after a labored investigation, reported as follows, by which it will be seen that flax cotton is still in the distance:

*Resolved*, That in the judgment of this Society no such advance in the perfection of machinery to test the experiment of manufacturing Flax Cotton has been made as to warrant the society in awarding any portion of the sum appropriated by the Legislature, at the present time.

*Resolved*, That the society will keep the execution of the trust reposed in them by the Legislature for the present in abeyance, under the hope that such valuable improvements may be effected in the coming year, as may justify the society in awarding the whole or some portion of this amount to any such successful inventions.

*Resolved*, That the committee be requested to continue their investigations during the year at such time and manner as may on consultation with the President and Secretary of the society be deemed advisable.

*Resolved*, That the entire sum of two thousand dollars appropriated by the State as aforesaid, now in the hands of the Treasurer of the society, be deposited by him in hands of one of the Trust Companies of the city of New York, where it may draw interest until required for the purpose designated by the Legislature.

**HOVEY'S SEED STORE.**—We take pleasure in calling the attention of our gardening and lady friends to this new establishment. We have seen several lots of vegetable and flower seeds from this house, which have greatly pleased the purchasers in two respects, good seed and at an unusually low price. The stock of field, garden and flower seeds is very large and of the best quality.

All kinds of farm and garden implements, tools and machines can be had at this house. Gardeners will also find a most excellent quality of flower pots, as we know from having purchased several thousand during the past year, and for our spring operations. His three-inch pots for melons, cucumbers and tomatoes are just the thing; and all those who wish to insure these delicacies a month in advance of those in the open ground, should order without delay. We use over three thousand pots for these plants this spring.

See card.

**SEED LISTS RECEIVED.**—H. A. Dreer, 227 Chestnut street, Philadelphia. Flower and vegetable seeds, among which is a large collection of German flower seeds in original packages.

James J. H. Gregory, Marblehead, Mass. Vegetable and flower seed, cabbage and squash the leading articles.

J. Vick, Rochester, garden and flower seed.

**COOK'S NURSERY.**—We again call attention to the card of this old and well known nursery, an establishment that has done much to stock our orchards and grounds with valuable trees and plants. For fine thrifty stock, this nursery stands at the head of the list. Their mode of growing is such that the most obdurate scraggs must yield to its straightening tendency. Mr. C. has an immense stock of roses, green and hot house plants. Among his budding out plants he has a new seedling Petunia, of his own growing, and named the "Excelsior." It is described of a "velvety red, double and flowers of immense size, some of them having been measured that were fourteen inches in circumference; withal it is fragrant as any rose." Such a petunia is a rare acquisition, and we shall hope to see it in many of our gardens the coming summer.

Mr. C. has a large stock of grape vines of both old and new varieties, the prices of which are very low. His new wholesale catalogue is now ready for all applicants.

Our Egyptian friends will do well to send for Mr. C.'s catalogue, as they can receive trees and plants early in the season and very direct.

**OUR ADVERTISERS.**—Prince & Co. offer a large stock of specialties.

Babcock & Brother present their usual card with the largest stock of peach trees that we have seen offered in the State. We have had many letters of inquiry in regard to peach trees and are now pleased to know where they can be had. This nursery is in the tree peach region and know the best varieties to propagate; we commend them to all those in want of peach and other trees in the south part of the State particularly and everywhere in general. Nurserymen should not forget that they can get evergreen seedlings of Robert Douglass at remarkable low rates. Those wanting Concord and other grapes will do well to consult the card of J. Smith. We have purchased of him and always get large, well grown plants. Galusha offers apple trees very low. For seed send to A. H. Hovey for a catalogue.

**STATE AGRICULTURAL SOCIETY.**—In another part of this number will be found the proceedings of the January meeting. With the exception of Imphee sugar and Sorghum syrup, little interest appeared to be taken judging from the absence of specimens. Samples of cotton and tobacco were on hand, but in no wise to indicate the deep interest taken in them. About two hundred pounds of Imphee sugar from several growers formed the chief attraction. But two essays were read, one by J. H. Smith, of Quincy, on Sorghum, a valuable,

practicable essay, and the other by Miss Mary E. Murtfeldt, on the "indoor adornments of home." Miss M. is now one of the editors of the Farmer's Advocate.

**CATALOGUE AND BOOK RECORD—GRACELAND NURSERY,** near Chicago. F. Sulzer & Bro. Mostly roses and bedding out plants.

E. Sanders, also north of Chicago, both Chicago P. O., bedding plants.

Trade list of E. Y. Tears, nurseryman, Richmond, Ind.

Elwanger & Barry, Rochester, N. Y. four catalogues.

A. B. Galusha, Lisbon, Ill. Annual statement of trade and commerce of Chicago, from Hammill, Reynolds & Co., commission merchants, Chicago, a valuable and interesting work on the products of the West.

**QUARTERLY JOURNAL OF THE ILLINOIS STATE AGRICULTURAL SOCIETY GRATUITOUS.**—We should have published the proceedings of the Society in full if we could spare the space; but those wishing to know more of the doings will address J. P. Reynolds, Sec., Springfield. The work will well repay the trouble of sending for. Twenty thousand copies should find their way into the hands of our farmers.

**SEEDS FROM WASHINGTON.**—We have received from Hon. Isaac Newton, Commissioner of Agriculture, two packages of seeds, all with the exception of the Fegee Tomato valuable, and that we suppose was put in as being new and curious. We learn that a large lot of the seeds passed over from the patent office, have been very properly rejected as worthless. We hope that the day of worthless seed is now over from that direction and that valuable if new varieties are not sent out.

**FARMER'S ADVOCATE.**—This paper has been consolidated with that old and popular paper, the Prairie Farmer. This move we think will benefit the farmer in giving him a better paper thus combined than the two separate, as we notice that Mr. Bonham will continue to contribute to the P. F. No intimation is given as to the disposal of the associate editors of the Advocate, but it is not likely that they will remain idle. We think a better day is dawning on the western agricultural press. Our own lists have been largely augmented and still they come. Success to the new consolidation.

**PROSPECT FOR THE PEACH CROP.**—J. A. Carpenter, of Cobden, writes us: Prospects of fruit good—plenty of peach buds.

Mr. Crosby, of Centralia says, the peach buds

are badly injured, but we presume enough left for a fair crop. With us the fruit buds are nearly all sound. The prospect at the present writing is, on the whole, good for all kinds of fruit, and as the spring will open unusually late, we shall have less than the usual misgivings on the subject.

WHITE WILLOW.—We learn that the *Salix Purpurea*, or purple willow, which was sold some half a dozen years since for willow prices, has been laid under contribution for the white willow. One man of our acquaintance, we understand, has done a good trade in the cuttings. So we go.

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Special Notices.

AGENTS.—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

ENLARGE YOUR CLUB.—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

TO SINGLE SUBSCRIBERS.—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

DRAFTS.—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

THE FARMER AS A PRESENT.—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

SEND NOW.—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

TO THE CASUAL READER.—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.

HOW TO OBTAIN SUBSCRIBERS.—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their





paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**How to HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

## Advertisements.

### COOK'S WALNUT HILLS & WHITE OAK NURSERIES,

Madison Road, adjoining the Corporation Line,

Where can be found at all times a full variety of  
GREENHOUSE PLANTS,

FRUIT TREES,

SHRUBBERY,

EVERGREENS, &c.

Boquets and Cut Flowers at all Seasons, to Order.

N. B. Omnibuses pass the Nurseries every hour, starting from corner of Fifth and Sycamore streets, Cincinnati. Orders respectfully solicited. Plants and Trees delivered in any part of the city free of charge. Address

J. S. COOK,

Nurseryman, Cin., O.

### WANTED. KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$50. Weight 45 pound. Freight from 50 cents to \$1 50. Send for circular and samples, (send stamps.)

BRANSON & ELLIOT,  
General Agents,  
120 Lake street, Chicago, Ill.

Apr '63 ly


### H O V E Y ' S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Novtf1862 No. 194, Lake st., Chicago Ill.

### BLOOMINGTON NURSERY BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees  
200 NAMED SORTS TULIPS, ALSO HYACINTHS  
Crocus, and a general assortment of Bulbs  
and Flower Roots for Fall and Spring planting.  
Nursery stock. Evergreens. Greenhouse and garden  
plants—all at wholesale and retail at lowest cash  
rates.

 For particulars see Catalogues or address subscriber.  
F. K. PHENIX.

Bloomington, Ill., Aug. 1, 1859.

## GENUINE TREE COTTON SEED.

A limited quantity of the above seed can now be obtained if applied for soon, of

**EDWARD TATNALL, Jr.,**

Brandywine Nurseries,  
WILMINGTON, - DELAWARE.

This seed was procured at considerable expense by William Ferris, of the above city, from the mountain regions of South America, having been conveyed thence by mule, "seven days journey" to Guayaquil, where this gentleman resided nearly three years, and made himself acquainted with the fact that this cotton thrives, and is cultivated on the elevated lands of the Andes, of which it is a native. His object was to introduce it into our Northern and Western States, believing if it would stand their climate (and where it now grows it is frequently covered with snow and ice) it would prove a source of great interest and profit to the people of those States.

As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State.

Apr2m

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

Address, **M. L. DUNLAP,**  
Champaign.

March 1, 1863.tf

## BABCOCK & BROTHER'S Saint Clair Nurseries,

SUMMERFIELD, ILLINOIS.

Twenty-five miles from St. Louis, on the O. & M. R. R.

Have on hand and offer for sale the coming spring a large and well selected stock of trees of very superior growth, which they offer for sale to the trade or planters, at low rates for cash. We offer Apples, Cherries, Currants, Pears, Apricots, Gooseberries, Plums, Grapes, Strawberries, etc. 80,000 Peaches of the most popular market sorts, at \$75 per 1000, \$10 per 100. We offer a choice collection of ornamental stock shrubs, roses, plums, etc., etc. Correspondence and inspection of stock solicited.

Feb'63-3m.

## DuPage County Nurseries,

NAPIERVILLE, ILLINOIS,

The proprietors would call attention to their extensive stock of

APPLE,

PEAR,

CHERRY,

PLUM, and

PEACH TREES.

GRAPES,

GOOSEBERRIES,

CURRENTS,

STRAWBERRIES,

&c., &c., &c.

SHADE AND ORNAMENTAL TREES,

200,000

Evergreen Trees.

from a few inches to eight feet.

Shrubs,

Roses,

Dahlias,

Greenhouse Plants.

300,000

SILVER LEAVED MAPLE,


(Not Poplar) from two to three years old.

Our trees are grown and handled in such a manner as to make them safe to transplant into orchards.

## OUR PRICES

will be found as low as from any good establishment.

Our trees are thrifty and healthy, some of which have fruited in our grounds.

 Catalogues Gratis.

Orders solicited.

**LEWIS, ELLSWORTH & CO.**

March 1, 1863. 2t

## NIAGARA NURSERIES,

*Lockport, New York.*

The Largest and Cheapest Stock of

### Fruit and Ornamental Trees

West of Rochester.

200,000

Apple Trees, five to eight feet high, eight dollars per 100.

50,000

Standard Pear Trees, five to seven feet high, \$25 per 100.

20,000

Dwarf Pear Trees, three to five feet high, \$18 per 100.

Also a complete assortment of

CHERRY TREES, PEACH TREES,

*White Grape and Cherry Currants.*

All of the new varieties of

NATIVE GRAPE VINES,

ORNAMENTAL TREES,

Shrubs, &c., &c., &c.

Wholesale and retail catalogues sent to all applicants who inclose a stamp to prepay postage.

A correspondence is solicited.

Address,

E. M. MOODY & SON,

Lockport, New York.

February 1, 1863. 2m.

## FRUIT TREES

AT

## WAR PRICES!

The subscriber would call the attention of those desirous of planting Fruit and Ornamental Trees to his large stock. He has for sale this fall and spring

A FINE ASSORTMENT OF  
Apples, Peach, Pear, Cherry, Plum,  
Nectarine, Apricot, Quince, Shade  
Trees, Currants, Strawberries,  
Blackberries, Gooseberries,  
Cranberries, Raspber-  
ries, Grape Roots  
and Cuttings.

ALSO A LARGE STOCK OF

## GREEN-HOUSE PLANTS.

## EVERGREENS.

DECIDUOUS AND

## ORNAMENTAL TREES

AND

## SHRUBS.

DESCRIPTIVE CATALOGUES,

with prices annexed, will be sent, on application to J. S. Cook, Walnut Hill Nurseries.

ORDERS RECEIVED FOR DEWEY'S COLORED FRUIT PLATES, AND BLIS'S NEW PLANTS. Lists sent on application.

P. S.—Omnibuses pass the nurseries every hour—starting from Lewis' steam bakery, No. 172, Sycamore street, four doors above 5th street, Cincinnati Ohio.

Post office address: J. S. COOK, Box 1029, Cincinnati, O. Ncv6m.

City Office and store, 197 Walnut street.

**GEORGE S. THOMPSON,**

Late of Com. Gen.'s Office,

**Attorney for U. S. Military Claims,**

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House  
of Messrs. N. H. Ridgely & Co.

Having had much experience in prosecuting claims against the United States, particular attention is given to Recruiting Bills made by officers and men of volunteer companies and regiments, for subsisting, and, collecting, organizing and transporting troops prior to muster into service; Back Pay due Resigned Officers; Back Pay due Discharged Soldiers; Pay due Deceased Officers, their Widows or Heirs; Bounty and Pay due Heirs of Deceased Soldiers; Pensions due Deceased Soldiers' Widows and Minor Heirs; Pensions due Invalid Soldiers; Pay for Horses lost, killed or died in the United States' service; All Claims growing out of the Present War.

Pensions collected semi-annually, from the Agent of the United States at Springfield.

Any kind of claims for service, or for property destroyed, stores or property sold officers of the United States.

Would respectfully refer to Messrs. John Williams & Co., Bankers; J. C. Bunn, Esq., Banker; Capt. C. B. Watson, U. S. Mustering Officer; Lieut. Geo. W. Hill, U. S. Mustering Officer; Major C. S. Hempstead, U. S. Paymaster; Capt. Ninan W. Edwards, U. S. Commissary; Captain W. H. Bailhache, U. S. Quartermaster; Col. P. Morrison, 8th U. S. Infantry, Superintendent Recruiting for Regiments of Illinois, Springfield, Ill. Major J. G. Fonda, 12th Ill. Cavalry, Commandant at Camp Butler.  
August, 1862.tf

**EVERGREEN SEEDLINGS.**

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5,00

NORWAY SPRUCE, three years  
old, six to nine inches, \$8,00

SCOTCH PINE, two years old,  
three to five inches, \$7,00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARKVITÆ, &c., &c.,  
of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the  
best varieties for the West.

A large stock of RED DUTCH CURRANTS, the  
best for market, two to three years old, at half the  
usual rates.

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Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
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ROBT. DOUGLAS.  
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February 1, 1863. 3m

The Illinois Farmer,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to getter up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside. The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

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And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

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The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

CONTENTS.

About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

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# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., MAY, 1863.

NO. 5.

## May.

April, with its weeping skies and muddy furrows is passed, and May—bright, beautiful May—with her train of vernal flora, is here to greet us. The fields are again rich with green, and the broad acres of the spring sown grain gladden the eye of the farmer; and now the planting of corn is the order of the day—the great staple crop of Central Illinois, is to receive our especial attention.

We have often urged the necessity of planting immediately after the plow, in rows one way, and to roll the ground. With the use of the two-horse cultivator check rowing is of no use. If the planting follows the plowing, the part first planted will be ready to work when the last is planted, and no time is lost waiting for the corn to come up, and the weeds to become established. When no roller is used, a two horse harrow can be used to good advantage, passing it over the entire field, as the corn is coming up, and until two inches high. This will do a small part of the work that the roller would have done.

Potatoes that were not planted the last of April should be put in at once.

Look over your garden and see that you have it in good order, and plenty of seed sown.

Set out cabbage for winter use; it is a great mistake to plant the winter cabbage late in the season for fear the

head will burst. When they show a tendency this way, loosening the roots a little by partially raising the plant and then pressing the plant back will check all this, and the cabbage will mature all the better. We dislike late cabbage.

Thousands of acres of Sorghum and Imphee will be planted this month. The ground should be warm and in fine tilth. To make it so, roll after plowing, and follow with the harrow; the roller will crush the lumps, and the harrow will open the soil to the sun and air. Twelve to fourteen plants in a hill is about right and will prevent suckering. The Chinese cane is best for syrup, and the Oomsee-a-no, or as it is often called the Otaheite for sugar. The cane seed sent us by Mr. Huffman is doubtless valuable for sugar, the flavor of the syrup being the same as the Otahiete.

Flax can be sown on sward broken up the first half of this month, for seed only.

Look well to your drainage; heavy rains occur this month, and where water stands for a few hours the crop will be ruined. The dead furrows should be opened with a spade where it is not well done with the plow. The day for a more thorough system of drainage is at hand, but we must wait the end of the war for the necessary labor.

The white willow cuttings set last

month should now be looked after - if set too shallow, as we suppose many of them will be, put them in deeper, and keep them clear of weeds and the soil mellow about them—don't mulch them with bright straw, or the sun will burn them up.

If you have some weedy grassy border, not easily accessible with the plow on account of trees or other cause, plant to potatoes by dropping the seed on the surface and putting on some six inches of straw or hay, if half rotten all the better. In this way you get a good crop of potatoes, and have your border renovated in the bargain.

If you wish to manure your corn or potatoes, better do it immediately after planting, by scattering the manure broadcast, than to plow it under. One load of manure on the surface is worth two plowed under.

Sheep will need shearing the last of the month, and we hope none of our readers will repeat the barbarous practice of washing them. It is time that this bad habit should be weeded out.

Fruit trees should be examined, and if found to lean over, excavate under the opposite side, but not cut the roots, and bring the tree back to its position, when the earth can be replaced, and the tree securely staked, until the roots have made a firm hold of the soil.

#### A Chapter on Flower Seeds.

Great is the tribulation of our lady friends, in regard to the germinating of flower seeds, in which the seedmen are often called very—very naughty names. From hearing this so often repeated by ladies old, ladies young, pretty misses and kind old maids—that we had come to have great faith in their sayings on this very important subject. but of late years we have cut loose from a large number of fossilated ideas, that a careful investigation has made vanish like the baseless fabric of a dream, and among them this cry against the rascally seedsmen has melted almost into thin air.

We would like to say it had entirely done so. The practice of mixing old seeds with new, or even selling old for new, is not as yet obsolete; nor do we ever expect the race will die out entirely until the millennium shall dawn its light day upon us. We will ferlessly assert that nineteen-twentieths of all good flower seeds are lost from mismanagement and sheer ignorance; at least this used to be our luck; until the last few years, that we have adopted a rational system of culture; and now have no trouble with good seed. We sow seed beds in the open ground, in boxes and pots, set in hot beds or the green house. We prefer the hot bed or green house; as in that way we have early plants, and, of course, early flowers. But few of our readers have a green house, and some of them no hot bed; we, therefore, give instructions for both modes. Heat and moisture are essential elements in the growth of plants, and without which seeds will not germinate. In sowing in the open border early in May, after the soil has become warm, rake the beds very fine and smooth, sow the seed on the mellow surface, and pack the earth on them with the back of the spade. Very few flower seeds need any further covering, unless of large size, like four o'clocks or cobeia scadeus. If covered too deep they will not grow at all, and when sown shallow, often dry out and are thus lost. We have good luck when several days of rainy weather succeed the sowing, and bad luck when it comes off dry and warm. Here is the rub and just what we must guard against—dryness. The best way is to cover the bed a foot deep with twigs, prunings of shrubs or trees, none of which should be more than half an inch in diameter. This bush covering will prevent evaporation and radiation, and the bed will not require watering unless in a very dry time, and the seeds are thus kept damp, and even if on the surface will grow; but on examination it will be found that they have all been well bedded in the loose soil by the packing down with the spade. After the plants are of good size they are transplanted, during a wet time, and should it come off warm and dry shade with a board, shingle, or cabbage leaf for a few days. The brush should be gradually removed from the seed beds, so as to harden the plants to the air and sun. Do not be in a hurry to transplant, but let the plants get of good size. We never think of sowing flower seeds when the plants are to stand but always transplant. When a hot bed can be had the best way is to sow in boxes, and when the plants get from leaves prick them out into a large hot bed, or into cold frames, that is, make a good nice bed to plant them in, so that the plants will have plenty of room, say three or four inches

apart; around this bed put the usual hot bed frame of boards; these will protect the plants from the wind, and must be covered over with sash or boards, or on very cold nights an addition of straw, old carpets or the like. The frame should be banked up with earth to keep out the wind.

When but a few seeds are sown a small box can be made to be covered with a single light of glass or a window sash. This can be set so as to receive the light of a south window, and on warm days be set out of doors. After the plants are up care must be taken, when out in the sun, to give air or they will be liable to be burnt up by the sun through the glass. In sowing in boxes, a slight sprinkle of sand over the seeds is valuable, and will tend to keep them moist.

With the great variety of bedding out plants that are now furnished by our florist, there is less need of annuals; yet there are certain annuals that cannot well be dispensed with, even in the neighborhood of green houses, nor is it at all times convenient for our country friends to obtain them.

### Scientific Culture of the Cranberry.

Gen. R. K. Swift and associates are intending to enter on the culture of this valuable fruit on a large scale. To this end they have selected several hundred acres of cranberry marsh at Peru Lake near the west shore of Lake Huron and north of Saginaw Bay. By a drain of a few feet high and a few rods long, these marshes can be flooded at all seasons of the year. It is also the intention of the parties to tile drain the marsh, so as to have full control of the plants. Flooded, the plants to protect from frost and to kill all weeds, and at other times to give them the most vigorous growth.

Naturally, the cranberry is a very uncertain crop, being liable to damage by late frosts, but the General thinks his flooding will be a remedy for this and thus insure large annual crops. From the maps and description sent us we must consider this one of the best sites for both irrigation and drainage. The marshes were formerly barren dams, with a small stream running through them, coupled with several feet of fall below the dam. We shall look forward to this enterprise with no little interest as promising abundant return to the enterprising proprietors. Gen. Smith is well known for his energy and character, and those interested with him will doubtless reap a good return, and the public be gratified with a supply of this pleasant and health-giving fruit.

Though not originally intended, the location in the neighborhood being so desirable the growing

of evergreen seedlings will also form a part of the business.

## Poetry.

### Spring.

So forth issued the seasons of the year;  
First, lusty spring, all dight with leaves of flowers  
That freshly budded and, and new blossoms did  
bear,

In which a thousand birds have built their bowers;  
That sweetly sung to call forth paramours;  
And in his hand a javelin he did bear,  
And on his head, (as fit for warlike stores)  
A gilt engraven morion he did wear,  
That, as some did him love, so others did him fear.

*Spencer's Fairy Queen.*

Hail bounteous May, that dost inspire  
Mirth, youth, and warm desire:  
Woods and groves are of thy dressing,  
Hill and dale doth boast thy blessing.

*Milton's May Morning.*

Now do a choir of chirping minstrels bring,  
In triumph to the world, the youthful spring.  
The valleys, hills, and woods, in rich array,  
Welcome the coming of the longed for May.  
Now all things smile.

*Carew.*

How flora decks the fields  
With all her tapestry! and the choristers  
Of every grove chant carols! mirth is come  
To visit mortals. Everything is blithe,  
Jocund, and jovial.

*Randolph's Jealous Loves.*

Come, gentle spring, ethereal mildness, come.  
And from the bosom of yon dropping cloud,  
While music wakes around, veil'd in a shower  
Of shadowing roses, on our plains descend.


*Thompson's Seasons.*

See where surly winter passes off,  
Far to the north, and calls his ruffian blasts;  
His blasts obey, and quit the howling hills,  
The shattered forest, and the ravag'd vale;  
While softer gales succeed, at whose kind touch,  
Dissolving snows, in livid torrents lost,  
The mountains lift their green heads to the sky.

*Thompson's Seasons.*

As yet the trembling year is unconfirmed,  
And winter oft at eve resumes the breeze,  
Chills the pale moon, and bids the driving sleets.  
Deform the day delightless.

*Thompson's Seasons.*

 He who kindly loves, loves warmly.

Agriculture.

Combined Roller and Corn Marker.

The "Iowa Homestead," says: "Mr. A. B. Lyman has called our attention to a new, and what we judge to be a very useful farm implement—combining a field roller and corn marker. In the first place it is simply a field roller. To transform it into a corn marker, two iron circular flanges, cast in sections, are fastened around the roller with wood screws at the desired distance for marking the rows. These flanges may be put on, or removed at any time, in a few minutes. The advantages claimed for this implement as a marker, over other markers in common use are, that it crushes the clods, packs the soil, and moves in a direct line—passing directly over all obstacles, instead of being thrown out of line, as is often the case with a common marker. We consider it worthy the attention of every farmer."

—So far good; but why not put the planter on at the same time, and have the thing done. We must have the planter and roller combined; who will get it up? The thing is indispensable, now that everybody is to use the two-horse cultivators. Ed.

Seeds from                      ngton.

DEPARTMENT OF AGRICULTURE, }  
WASHINGTON, D. C., April 11th, 1863. }

To the Editor of the Illinois Farmer :

By this mail I forward to you a package of garden seeds, being a part of those distributed through the country from this Department, and which, I think, are such as come within the intent of the act creating this Department. They are certainly sought for most eagerly by the people of the country. It is my intention to distribute the seeds hereafter, as far as possible, through the agricultural societies and clubs.

I hope these will be generally organized through the country, and I particularly request that every such organization now existing or which may be formed, should at once forward to this Department the name of its President and Secretary, that they may be promptly supplied with seeds and the agricultural reports, and you will confer a favor by calling attention to this through your paper, and oblige.

Your obedient servant,

ISAAC NEWTON,  
Commissioner.

—To some extent this will be the most desirable way, and perhaps, on the whole, the best, as it will place the seed in the hands of cultivators, instead

of, as formerly, in the hands of the political friend of Congressmen.

Clubs and agricultural societies will take the hint and govern themselves accordingly. Ed.

Sorgho, Past, Present and Future.

We clip the following from the "Chicago Tribune." It gives conclusive reasons for the extended culture of this plant. The last season experience has demonstrated that stripping is of no value and the corn will only need hoeing, when they are at once run through the crusher.

A large amount of capital is now being employed in this new department of agriculture, and the south will never recover their lost trade in sirup.

That sugar will be made from the Imphec we all know, but its cost is not so well defined. Last week we paid seventy-two cents a gallon for a barrel of double refined amber sirup, grown on our own soil. Now that the stripping—the most expensive part of the harvesting of sorghum—is dispensed with, farmers can plant more largely.

Ed.

"This plant which was grown in the United States for the first time in the year 1855, is now becoming a great staple article for exporting; yet nine-tenths of those that raised it in 1855 gave it up as worthless, not knowing how to raise or manufacture it. There was more sorgho raised that year than in the next two years. But a few enterprising men kept it before the public, and have made it a success. In the years 1861-2 there was about 1,000 barrels of it sold in the Chicago market, with a very dull sale, and low price. The past fall and winter there has been over 10,000 barrels sold in this market alone at a better price and quick sale. The demand has been greater than the supply, and the prospect now is that the next year there will be sent to this market 100,000 barrels, which, at \$16 per barrel, will be \$1,000,000. The question arises with the farmers, will this stock the market, or will there be a cash demand for that amount. Let us review the sale of sirups for the last four years in the United States:

In 1859 there was sold of Foreign	28,293,220	gals.
"          "          " Louisiana	21,067,760	"
In 1860          "          " Foreign	28,724,205	"
"          "          " Louisiana	18,594,672	"
In 1861          "          " Foreign	20,383,556	"
"          "          " Louisiana	19,808,000	"
In 1862          "          " Foreign	25,650,000	"
"          "          " Louisiana	27,018,000	"
Total Foreign in four years	103,051,371	"
" Louisiana	96,483,432	"
Average amount, Foreign	25,752,542	"
" Louisiana	24,121,108	"
Average per year	59,883,951	"

There is a heavy duty on the imported now, and Louisiana sirups are minus, and will our 100,000 barrels or 4,000,000 gallons supply the demand? I think not. Can it be raised at the above price on a large scale? It is a conceded fact that it only costs five dollars per acre to grow it, and it yields, when well raised, from 200 to 300 gallons

per acre, which is only two and a half cents per gallon. Gathering and manufacturing is very simple and easy with the improved machines, and only costs five cents per gallon. The sirup after it is refined, brings the highest price, or more than the foreign article of sirup. There is no crop raised that pays better, and there has never been a failure of the crop when well cultivated. Any good upland or dry soil will grow it. Stable manured lands injure the quality of the sirup. The soil should be pulverised very deep, as the roots are very strong and penetrate to the bottom. The ground should not be prepared until just before planting, so that the weeds will not get the start of the canes. The easiest way to raise a large crop is to drill in the seed. A corn planter, with a drill attached, did good business last year. Set them to drill very shallow, not over one inch deep. Roll the field as soon as planted. Be sure and have pure seed if possible, as it is no more work to raise a full crop than half a one. Put the seed in a bag and soak in warm water over night, then bury in a warm soil, or straw pile, until the sprouts start. Drill in rows about four feet apart east and west, or the heavy west winds may blow it down before ripe. Put about two pounds of seed per acre. If the seed is very plump use more. Do not plant in this way until warm weather. Seed planted, last season, from the 15th of April to the 15th of May, did not ripen as soon as seed planted from 15th of May to 15th of June.

We generally have a cold rain about the first of May, that injures the cane, and if the seed is just germinating, it will kill it. When the canes get up about two inches high, harrow the ground over crosswise of the drills. The roots are so strong it will not injure the canes, but will kill all the weeds; and when the canes are up four to six inches high, harrow with the row, with a two-horse harrow, knocking out the forward tooth; then plow or cultivate once, and the cane will take care of itself. Another good way to raise it and plant early, is to plow the soil deep, then take a stirring plow and throw two furrows together, and plant on the ridge, two and a half by three and a half feet. It can be planted earlier this way than the other, as the cold rains do not affect it, and the seed being up high and dry, the water settles between the rows. It can be plowed out when the canes are small, as they are not liable to get covered up, being so high. Plant ten to fifteen seeds in the hill, as there is as much saccharine matter in a small main stalk as in a large one; consequently we can raise three times as much per acre as when planted thin. Do not get humbugged with some new variety of seed with a great name, as I do not believe we will all get rich raising sugar, but may raising sirup. The canes should not be plowed among late in the season, as the roots that take the saccharine matter will be cut off, and the cane ruined for sirup. The seed from the cane will pay for growing the crop if well secured. It weighs about 42 lbs. to the bushel, and makes good feed for hogs or cattle, and yield about 25 bushels per acre. Sorghum has had to stand on its own merits. There has no article come into general use in so short a time, that has had so much to contend with as the sorgho. Mention it as a table sirup and it was sneered at by almost every one, especially grocery gentry, stating that it would never come into general use, as it had such a peculiar

taste. Did they not know that it was in its crude state and in its infancy, and that we live in an age of improvement? This same sorgho is now refined and on their tables branded as golden and amber sirups, and admired by every one, when it should be marked Western cane sirups, but such are the prejudices of some of our people. Take the crude Southern sirup, before it is refined, and how much more palatable is that peculiar taste, where the slaves have run over, through and into it waist deep? Has it a better flavor than the sorgho made by our Northern brothers? I think the peculiar flavor is in the sorgho's favor. Some may try to keep it from the being introduced to meet their trades and purses, but it is bound to succeed and come into general use, and drive all other sirups out of the market. Thousands of dollars are now being expended in sorgho machinery, which calls for a great number of mechanics, and gives them the benefit instead of sending it to other countries for sirup to benefit the few. In fact the machines are so thoroughly simplified through Yankee ingenuity, that every farmer can become an independent sugar planter if he wishes. The coming year every farmer should raise some of the sorgho, it is taking the place of sugar—it being a good substitute for brown sugars in cooking. Families formerly using five gallons of sirup for a year now use forty gallons of the sorgho. Farmers of the Northwest do your duty, and we will become independent of any foreign powers for sugar or sirup, and keep our money at home, and be a more independent people than ever before.

O. N. BRAINERD, Chicago.

### Coal Oil for Fruit Trees.

A gentleman formerly connected with the coal oil business in this city, tells us that several years ago in taking a lot of sample bottles of oil on a journey for exhibition, accidentally had a bottle broken, saturating the sawdust in which the bottles were packed. When he arrived at his stopping place, he put the sawdust at the foot of a plum tree it being about the blossoming of the plum trees. The result was watched, and it turned out that the curculio which ravaged the other plum trees in the orchard, gave this one a wide berth, and the plums were saved to ripen.

This circumstance led to further experiments, with like favorable results. The sawdust thus saturated—which can be with the cheapest kind of coal oil—retains the odor for a long time, which is offensive to the fastidious tastes of the little Turk. The borer also will not put his gimlet into the trunk of a tree which is encircled with this stuff.

The above we cut from the "Ohio Farmer," and give it for what it is worth, at the same time would caution our readers against a too free use of this oil. It may prove valuable in small doses. Last year we saturated cotton with this oil and placed it about the hills of our Hubbard, but without the slightest advantage.

Ed.

SEE advertisement of the Genuine Tree Cotton Seed, in another part of this month's Farmer: will be furnished on application by Edward Tatnall, jr., Brandywine nurseries, Wilmington, Delaware.



## Horticulture.

### The Kirkebridge Winter Apple.

STERLING, WHITESIDE CO., ILL., }  
MARCH 23, 1863. }

*M. L. Dunlap, Esq., Champaign, Illinois:*

You will find enclosed the grafts of the Kirkebridge White (White or Yellow June).

I expressed to you when here the superiority of this variety, not only as a tree, but also as a fruit. Its excellence has never been more fully manifest than during the past season. When blight has destroyed or injured so many of our best trees, in such a varieties as Keswick Codlin, Cooper's E. White, Rambo, Fall Wine, Smith's Cider, &c. This variety, (Kirkebridge White) has passed through, not only our hard winters, but also our worst season of blight with but little injury. It might not in other localities give equal satisfaction, but as an early apple for the million, during its season, in August, I am satisfied it is too little known. Had the farmers, years since, planted only such varieties as the Kirkebridge White, Wine Sap and Small Red Romanite, the destitute thousands now in our State, might be enjoying an abundance of fruit. It might not be the best quality, but so long as the high sounding names from abroad are preferred to a few well tried and hardy kinds, will the great mass of the people be strangers to even the most limited supply.

Respectfully,

L. S. PENNINGTON.

—When visiting the Doctor's orchard last summer, we were struck with the vigor, good health and immense productiveness of the above apple, and requested cions to enable us to top graft into some of our leading seedling trees. Mr. Flogg also considers it among the best in the South part of the State. With the thousands of miles of white willow belts that will be planted this spring, the tender varieties will gradually disappear, and we shall be enabled, within the next twenty years, to succeed well with even the tender Baldwin; but it will be safe for a few years to take the Doctor's advice, and plant well known hardy sorts. In grafting for the nursery the past winter, we have been mainly confined to about a dozen varieties. Long years of waiting for fruit has convinced us of the fallacy of a large number of varieties *a la* Downing—all fine when you get them—but there is the rub—we are to have apples; aye, apples in abundance, both for cooking and the table, of just such varieties as delight in our sudden changes, and stand up to the work, weather or no weather. In orcharding we are out of leading strings, and

have set up for ourself, aided by such men as Dr. Pennington, A. R. Whitney, A. S. Coe, Dr. Pearl, V. Aldrich, S. G. Minkler, and a few others. We invite the doubters to see our three and four year old orchard trees here, now loaded with rich promise of fruit. Just cast your eye over that orchard of six hundred May cherries, only two years planted, and one year grafted, and see if cherries cannot be grown for the million. Can't raise fruit on the prairies? Boh! The farmer who has no orchard is a laggard, and ought to take daily doses of calomel and quinine until the next planting time.—ED.

### Egypt as a Fruit Country.

MUSCATINE, IOWA, March 8, 1863.

*Editor Prairie Farmer:*

DEAR SIR:—Some twelve or fifteen years ago there was much said in praise of Southern Illinois as a fruit region.

At a later period it was thought that the earliness of vegetation in the spring would so often jeopardize the fruit crop by a frost occurring at the period of inflorescence as to render it at least an indifferent fruit climate; and if I remember rightly, you held this opinion over the signature of "Rural."

Lately I see it stated that there is a section of country somewhere in "Egypt" where the peach crop has not failed in twenty years. Is this a verity—or like a moon climate, always true where fully believed in?

I do not wish to trouble you with tedious questions requiring lengthy answers, but a brief statement of facts, as you may know them, would oblige me much.

We can do nothing in Iowa with the Lawton Blackberry, which is, in my estimation, a truly valid and delicious fruit where it can be grown to perfection.

The Heart and Duke cherries are also a failure here, and I suppose are nearly so in Southern Illinois, as a general rule. Is not "bark-bursting" so disastrous to this tree, the result of winter injuries?

Yours respectfully,

JAMES WEED.

—That the fruit crop in the South part of the State is more liable to damage by frost at the time of inflorescence is very true, but as this is the greatest risk, the liability on the whole is less than at points north, where the winter destroys the buds, and late cold spells after the fruit is set produces the premature dropping of the embryo fruit, and before we are aware the good prospect has melted away. I know of no point where the peach has

not failed within the past twenty years. In this county the apple crop has never been known to fail, though the orchards have been in bearing over thirty years.

The budded peach trees are liable to lose their fruit at the time of blooming when young, but they improve in this respect by age, and now the old orchards are being looked upon as quite certain of good crops. The fruit crop at the south part of the State has two drawbacks, the rot and insects, the worst of which is the curculio. We shall always have to depend upon Egypt for early peaches and many other fruits, but the great supply of apples must come from Central Illinois.

The Lawton Blackberry wants three years to become established, when, with a little cutting back, in August, and a slight covering of straw in winter, they ought to fruit even in Iowa.

There can be no question that the sudden changes during the winter damage the cherry tree. All the cherries that we have tried here, except the Morello family, have proved tender, and some of them even have failed. The Carnation being the most tender. We have none on our list as valuable as the May Cherry, (Kentish of Downing) Large English Morello, Reine Hortense, and of the Dukes for further trial Bourman May and Belle d'Choisy.

As a country for fruit Egypt must stand forth unrivalled, when we take into view the great number of varieties that can there be produced, from the fig to the long keeping apple. Her soil is among the richest in the world, and with half judicious culture her orchards will teem with great harvests of fruit. Other parts of the Northwest will prove profitable for certain specialties, but Egypt sweeps the whole list within her grasp.—ED.

### How to grow Early Melons.

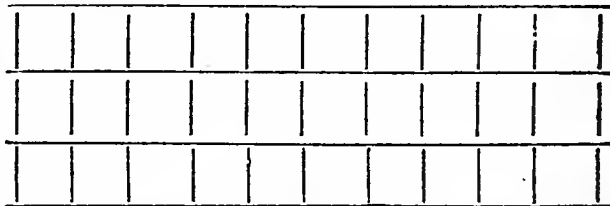
TREMONT HOUSE GARDENS,  
Chicago, Mar. 18, '63. }

M. L. DUNLAP, DEAR SIR: I send you by express one package of early and one of large late Nutmeg melon. I also send you a few D. O'Rourke peas. You may have them. There are many peas so called, that are not true to name. The Eugenie pea also sent, you will find valuable. We are now selling radishes at two cents each, and sending to market twenty dollars worth of lettuce daily, so you see gardening pays after all, and we can afford to buy gold.

The early nutmeg sent you are the most delicious, but the late are large and sell well.

The first of April, (with you the middle of March,) I make a hot bed, am particular to have a good heat. I then go on to the prairie, taking

with me a strip of fencing six inches wide; this I lay on the prairie sod, and with a sharp spade cut directly through the turf, then turn over and repeat until I have a width equal to the length of my board, I then place the board across these cut strips at right angles, and repeat the operation thus:



These sods should be four inches thick, presenting when taken up a cube of four by six inches. Thus sods are placed on the hot bed, grass side down, the middle of the sod is mellowed with a stick and the seed planted and covered with a mellow soil an inch deep. When the plants are up, thin the hills to two or three plants. With a good bottom heat and plenty of air in good weather they will grow stocky, and should be kept in the beds until in bloom, they are then put in the open ground under boxes with glass covers, but if planted two or three weeks later, they can go into the open ground without the boxes. Should the striped bug trouble them, sift on ground plaster, (gypsum) when the dew is on, and they will let them alone. I should give you one caution when the plants are in the hot bed, not to keep them too wet, as in that case they will damp off.

You will find the hot bed better than the greenhouse, as in the former they grow much more stocky.

I would not advise the use of pots, as the sod is much the best; the plants in this case experience little change in transplanting.

I picked from one acre of ground last season, of the early nutmeg in one day, one hundred dozen melons, and sold the most of them at two dollars per dozen. The same melons retailed at twenty to twenty-five cents each, but most of them went on the hotel tables.

Yours truly,

LEVI EMERY.

[The above is from one of the best, if not one of the most successful market gardeners in the Northwest. The Tremont House has long been known as one of the best hotels in the county, and much of its prosperity is due to its most excellent gardener, who has supplied the table with vegetable, in season and out of season.

The nutmeg melon is little cultivated by our farmers, but now when the mystery that enveloped the production of an early crop is removed, presenting a cheap and easy method, no farmer's garden should be without this delicious fruit. Water

melons and cucumbers can also be grown in the same manner.

Our gardening friends will not forget the plaster remedy for the striped bug, and which is applicable to the whole melon and squash family. A barrel will do for a whole neighborhood, or any surplus can be applied to other crops, such as clover and potatoes. The cost at Chicago is about two dollars, and can be had of A. H. Hovey, 194 Lake street, who is the agent for the Grand Rapids plaster.—Ed.]

### Injurious Effects of Pruning on the Quality of Fruit.

We have repeatedly cautioned our readers, says the *Gardener's Monthly*, against severe summer pruning of the grape. On the vitality of the grape it has a most baneful influence; and as we have often said, it is undoubtedly the parent of many of the diseases the grape vine is subject to.

The last time we took occasion to refer to the matter, it was in connection with the coloring of fruits. We showed how thinning out the growing leaves to "let in the light air" to color fruit, defeated its object. The blackest grapes are found in the shadiest places. A healthful vitality is the best coloring material, and this is best gained by securing healthy leaves and plenty of them.

But it seems there is another point in which the grape suffers by summer pruning, that we believe has not heretofore been noticed; and this one of immense importance to wine growers. In our department of "inquiries," a correspondent seeking information respecting hydrometers, incidentally states that he found by instrumental measure, grapes summer pruned have less sugar than grapes from vines not summer pruned. This observation is confirmed by the well known fact, that what gardeners call "shanking" of grapes, or that disease which about the time of ripening causes the bunch stems to shrivel and the berries to shrink can be brought about in one way, by a severe stripping off of the leaves of the grape vine, and that these "shanked" grapes are invariably as sour as any vinegar can be. Of course when the stem shrivels the sap cannot flow through it, and that this shanking illustration is little more than saying, if a grape bunch is cut off before maturity the fruit cannot ripen, which every one knows; but every one does not know that we cut off the fruit when cutting off leaves—cutting off, if not entirely in all cases, partially at least, by the obstructing of a full supply of certain elements essential to perfection.

It is scarcely possible to underrate this discovery so modestly stated by our correspondent, that

summer pruned grapes are not as sweet as grapes "let alone." It adds one more difficulty to those we pointed out in the way of a correct analysis of grapes as made by the United States Agricultural Department. It may account for the astonishing results of Dr. Wetherill, whose science made some grapes sour we all know to be sweet, and others sweet, that the wildest fox would not even make an attempt to reach, from their well known character. Not only climate and soil may have had to do with the Doctor's grapes, but the system on which they had been pruned also.

One cannot help feeling that the whole system of grape vine pruning, indeed of pruning in general, as heretofore laid down in books, is fast tumbling to destruction. We are taught to pinch here, stop exactly there, at that precise point we are to cut, at the twist, and just beyond turn, no one knows why or wherefore, but that the author says so, and he "knows." So many inches of wood the first year, so many score of leaves, so many bunches. The second year so many, and the third just so many more. Chapter on chapter, treatise on treatise, have been written, and what do they all amount to? The whole story may be told in a few words, and we may put it in this form;

If grape vines are let entirely alone the greater vital force of the top of the canes will soon exhaust all below, and the vines will gain a point entirely beyond our reach. Hence we train that we may confine the plant to the limits we wish it to finally occupy; and we prune that we may regulate the vital force so as to distribute it equally over the vine. Some few prune to get large bunches, but those in the secret look to vigorous roots to achieve this desired end.

To train properly requires art and skill; that is the operator must have a foreknowledge of how what he does will end. If he wants permanent arms in one place, or to have canes annually in another, he must learn practically, or from one who has had practical experience where to cut to bring them forth. This is the gardener's art, taught as boys are taught to make breeches, by precept and example, and for which end practical works answer an admirable purpose. In pruning, however, when its real object is understood, science is superior to art, and we will learn more with a grape vine before us, than in a whole winter night's study of the most practical work. We want only to equalize the vine's strength over the whole surface of the vine, so that no square foot shall be lost, but that as large grapes should be at the bottom as at the top of the vine, and a regular quantity all over; and we also want to keep the vine within the lim-

its we originally laid down for it. All this can be done by a few pinches of the growing shoots in summer time, and so perfectly can the work be accomplished that very little need be left for winter work to do. When a shoot appears likely to grow stronger than another, we pinch out its young and tender point; if that is not sufficient we take it away altogether. If one appear where a shoot or bunch is not wanted we take it out entirely. All this must be done early, before the leaves have well expanded, or the vine will suffer by what would then be summer pruning decidedly. One great object should be to get as many healthy vines as possible. When our vine is in a small space, we have to thin out more shoots than we would otherwise do, to give room for leaves to develop themselves freely; but there is more danger generally of having too few than too many.

In pinching back strong shoots, or in stopping back any when they have reached the assigned limit to their length, the young buds just beneath the points pinched back to, will burst again. If wanted to increase in length as in the first instance, one bud can be left to grow, in order that they shall not entice away any sap from the original leaves, which must in all cases be left as long as possible on the vine, and carefully guarded from all injury from any cause whatever.

Thus we would make all pruning have an ultimate reference to the leaves, checking the strong shoots so that the weaker shoots may bear larger leaves, and thinning out shoots only that the leaves on the canes we want to preserve should have every chance for as full a development as we can possibly afford them.

We have before laid down the maxim that if we take care of the leaves the trees will take care of themselves; and we are pleased that our unknown correspondent has published a hint by which we are enabled to enforce the point with greater emphasis than ever.

### Opedeldock.

Take two pounds white bar soap, cut it in thin slices and boil it till melted, over a slow fire in three quarts of soft water, or more if necessary. Get three pints of alcohol, take one-half of the same and add to it one-half ounce oil rosemary, one-quarter ounce oil wormwood, take the other half and add to it two ounces camphor gum, well pulverized. Next take quart bottle, fill it with warm soft water and add one-half pound salts of hartshorn pulverized, cork it tight, place where it will keep warm until dissolved. When the soap is melted strain it off into a pan while hot, then pour in all the ingredients, stir it rapidly, bottle or jug it, while warm and cork it tight. This will make five or six quarts. Some people add one-fourth ounce oil peppermint, but we do not.

—A lady friend hands in the above. We have used the preparation for the past two years, and find it valuable. Its cost is but a trifle, and it is useful for both man and animals.—Ed.

### American Pomological Society Transactions.

We are in receipt of this valuable work, the main feature of which is the catalogue of fruits for different parts of the country. In accordance with the suggestion of the local State committees the general committee divided this State into three districts, the North, Central and South. The work contains 231 royal octavo pages, and is only sold to members on the payment of two dollars. Address Thomas P. James, Philadelphia, Pa., or James Vick, Rochester, N. Y.

The members from this State are Babcock & Bro., Summerfield; M. L. Dunlap, Champaign; W. C. Flagg, Moro; A. M. Lawver, Freeport; E. Ordway, Freeport; F. K. Phenix, Bloomington.

We regret to see so small a list from this State.

C. R. Overman, is Vice President for the State, and M. L. Dunlap member of the General Fruit Committee.

#### THE SPECIAL COMMITTEE ON REVISION OF CATALOGUE.

P. Barry, New York.  
J. S. Cabat, Massachusetts.  
J. A. Warden, Ohio,  
Chas. Downing, New York.  
C. M. Hovey, Massachusetts.  
L. E. Brewmans, Georgia.  
Wm. Reid, New Jersey.  
F. R. Elliott, Ohio.  
J. J. Thomas, New York.  
M. L. Dunlap, Illinois.  
M. H. Wilder, Ex-Officio.

This is the most important committee, and we trust every fruit grower will send to the member for this State all the information that he possesses, so that the catalogue for the State may be full and complete.

#### LIST OF APPLES FOR ILLINOIS.

N. for North, C. for Central and E. for Egypt  
A cipher indicates the variety does well in that locality, and two ciphers most highly recommended.

	N.	C.	E.
American Summer Pearmain.....	0	0	
Astracham Red.....	0	0	0
Autumnal Sour.....	0	0	
Bailey, sweet.....	0	0	
Bellflower, yellow.....	0	0	0
Binoni.....	0	0	
Ballack's Pepin.....	0	0	
Buckingham.....			0
Caroline, red June.....	0	0	0
Dorwin.....	0	0	
Duchess of Alderburgh.....	0	0	
Dyn.....		0	
Early Harvest.....	0	0	0
Early Pennoch.....	0	0	0
English Russet.....	0	0	

	N.	C.	E.		N.	C.	E.
Fall Pippin.....		0		Kirtland.....		0	0
Fall Wine.....	0	0		Lowman.....		0	0
Fall Queen of Kentucky.....			0	Louise Boom de Jersey.....		0	0
Snow.....	0	0		Grnandaga.....		0	0
Fulton.....	0	0		Passe Colman.....		0	0
Little Romanite.....		0		Stevens' Genessee.....		0	0
Golden Sweeting.....			0	Tyson.....		0	0
Howthordon.....		0		Urbanist.....		0	0
Henfordshire Pearmain.....	0	0		Washington.....		0	0
Hew's Virginia Crab.....			0	Winter Nellis.....		0	0
Sweet June.....	0	0					
Horse Apple.....			0	CHERRIES.			
Hubbardson Nonsuch.....		0		Belle de Choisey.....	N.	C.	E.
Jersey sweeting.....	0	0		Belle Magnifique.....		0	0
Jonathan.....	0	0		Early Purple Guigne.....		0	0
Keswick's Codlin.....	0	0	0	Kentish(May Cherry).....		0	0
Limber Twig.....		0	0	May Duke.....		0	0
Laswell.....	0	0		English Morello.....		0	0
Maiden Blush.....	0	0	0	Plumstone Morello.....		0	0
Milam.....		0		Reine Hortense.....		0	0
Michael Henry Pippin.....	0						
Myers' Nonpareil.....	0			PEACHES.			
New York Pippin.....			00	Cales Early Red.....	N.	C.	E.
Newtown Pippin, yellow.....		0	0	Cooledges.....		0	
Northern Spy.....	0			Crawford's Early.....		0	0
Northern Sweet.....	0			Crawford's Late.....		0	0
Ortly.....		0		Druid Hill.....		0	
Paragon.....		0		Early Tillotsou.....		0	0
Porter.....		0		Early York (Surrate).....		0	0
Pryor Red.....		0		George the Fourth.....		0	0
Rambo... ..		0	0	Grand Admirable.....		0	0
Rawl's Janet.....	00	00	00	Grape Mingnonn.....		0	0
Red Canada.....		0		Haines' Early Red.....		0	
Roman Stem.....	0	0		Heath Cling.....		0	
Roman Beauty.....		0	0	Kennick's Heath.....		0	
Sim Gudnon.....		0	0	Lagrange... ..		0	
Smith's Cider.....		00	0	Large Early York.....		0	0
Summer Rose.....	0	0	0	Large White Cling.....		0	
Summer Queen.....	0		0	Lemon Cling.....		0	0
Swoar....		0	0	Leopold.....		0	0
Talmon's Sweet.....	0	0	0	Motto.....		0	0
Newton's Spitzenburgh.....		0	0	Mareis White. ....		0	0
Wagner.....	0	0	0	Old Mixon Free.....		0	0
Westfield Seeknofurther.....	0		0	Old Mixon Cling.....		0	0
White Pippin.....	00	0	0	Scott's Nonpareil.....		0	
Winesap.....	00	00	00	Smack's Free.....		0	
Willow Twig.....	00	00		Froth's Early.....		0	
Wine Apple or Hay's.....		0		Ward's Late Free.....			0
Yellow June.....	0						

The above list was compiled from the reports of 1862, and previous ones, and as will be seen needs revision, aided by the fruit growers of the State which we hope to correct for the next meeting.

PEARS.				NECTARINES.			
Bartlett. ....		0	0	Early Violett. ....	N.	C.	E.
Barre d'Anyon.....		0	0	Elruge.....		0	0
Burrie Diel.....		0	0				
Burre Coster.....		0	0	APRICOTS.			
Bloodgood.....		0	0	Breden.....	N.	C.	E.
Buffum.....		0	0	Moorpark.....		0	0
Dearborn Seedling.....	0	0	0	Peach.....		0	0
Dozenne d'Ete.....		0	0				
Dozenne Gray.....		0	0	PLUMS.			
Dozenne White.....		0	0	Car's Golden Drop.....	N.	C.	E.
Duchesse d'Angulum.....		0	0	Green Gage.....		0	0
Flemish Beauty.....		0	0	Haling's Sapush.....		0	0
Glout Morceau.....		0	0	Imperial Gage.....		0	0
				Jefferson.....		0	0
				Lowren's Favorite.....		0	0
				Lombard.....		0	0
				Monroe.....		0	0
				Orleans, Smith's.....		0	0
				Washington.....		0	0
				Yellow Egg.....		0	0



## NATIVE GRAPES.

	N.	C.	E.
Catawba.....		0	0
Clinton.....	0	0	
Concord.....		0	
Isabella.....	0	0	

### Tree Planting.

As the season for planting trees is here, we would advise our readers to be making preparations for the same. No outlay of money pays a surer, and at the same time, more pleasant and profitable return than the judicious expenditure of a few dollars for fruit and ornamental trees. Besides the pleasure and profit to be derived from it, the enhanced value it gives to property alone, would much more than pay all the expenses, both of time and money. If you have a farm, plant an orchard; and, although perchance you may not reap the immediate benefit, be assured some one will. If you do not own a farm, plant trees in your garden, and although you can plant but few, do not neglect it on that account. But plant trees—Fruit, Ornamental and Shade. Beautify and ornament your homes in this manner, and make them worthy the name of Home.

### The Petroleum Trade.

The rapid and extended use of petroleum has no parallel in the history of manufactures or commerce. It is but three years (Aug. 1859), since petroleum was first obtained in any notable quantities in the valley of Oil Creek, Pa.; and yet in that short period its employment for artificial illumination has spread over all parts of the civilized world and the distant islands of the sea. The obtaining of it from the oil wells, the refining of it, the carrying of it to market and export of it abroad, combine to form a new manufacturing and commercial business for America, of great extent, which is the source of no small amount of wealth. Its rapid growth is proven by the fact that in the first nine months of 1861 the exports of it amounted to only 368,940 gallons, while in the same time in the current year they amounted to 6,204,819 gallons,—an increase of no less than 5,925,879 gallons. From the first of January last up to the 7th of this month, there was exported from the three ports of Boston, New York and Philadelphia, 7,887,768 gallons, valued at \$2,040,750. Australia, China, New Zealand, and the West Indies, have received cargoes, but the greatest quantity went to Europe, and no less than 4,101,437 gallons to Great Britain.

In a circular recently issued by A. Macrae, the great oil broker in Liverpool, it is stated that from the first of January up to the 18th of October last there were received at Liverpool, of crude and refined petroleum, 200,000 casks, valued at \$3,000,000; this includes Pennsylvania and Canada petroleum. Crude American is now selling at Liverpool for \$100 per ton; it was selling in May last for only \$40 per ton. Benzine (the lightest refined oil) is in large demand. There is also a great demand for the heavy lubricating American petroleum. This circular says: "The oil exported from America and Canada in 1862 (the first of its European introduction) exceeded in value £1,000,-

000. Yet, one tithe of its dissemination is not effected; Britain has manipulated pretty freely, so have France and the German States, but so clamorous are they for more that the export extension cannot be made sufficiently general. Spain, Portugal, Italy and Russia have yet to receive it in the crude form."—*Scientific American*.

### Fences and the Cattle Law of New York.

We copy the following report of a discussion upon the above subject which took place on the third evening of the New York State Fair, at Rochester, from the *Country Gentleman*.

T. C. Peters opened the discussion. He had obtained the statistics he was about to present, during four years extensive travel throughout the State. He alluded to the great importance of providing fencing for the future—old fences were decaying, and new ones would be needed, and we should have to adopt more nearly the practice of European countries. He assumed a mile of highway to each square mile of land—which is probably far within bounds. There are 28 millions acres of land—of this about 16 millions are improved and 10 millions unimproved—the remaining two millions probably are villages, &c., according to several authorities cited. According to his estimate there were about 28,000 miles of highway in the State, or 56,000 miles of road fence. The cost of road fence he placed at a dollar a rod—the capital required to keep up the fence, another dollar at interest. The total annual cost of keeping up road fences, is over two million of dollars, or nearly one-half the entire State tax.

The average size of farms over the whole State is estimated carefully at 100 acres each—these fenced in 10 acre lots, require 800 rods of fence on each farm—besides the cost of the waste land. The whole cost of all fences in the State, he figured at \$144,000,000. The annual interest on the fences on each farm is \$56—or \$28,000,000 are to be charged to the farmers of this state to keep up the fences annually. Yet all the taxes paid by farmers is only 33 cents per acre—the cities paying a large portion—yet the annual tax that fences occasion is one dollar and twelve and a half cents per acre!

A member present stated that he had made a careful estimate of the roads of the State from Smith's large new map, which gives every public highway, accurately laid down, and he made the amount about twice as great, or 60,000 miles, requiring 120,000 miles of highway fence.

The chairman, A. B. Conger, in reply to an inquiry, said that the public had only the right of way on the land owned by private individuals—who really owned the land thus occupied. He then explained the present road law for the exclusion of cattle from the highway.

### Flower Leaves in France.

In the South of France a harvest of two and a half millions of pounds weight of flower leaves is gathered every year, and sold for £250,000 sterling. It consists of 100,000 pounds of leaves, of the orange blossom, 500,000 pounds of rose leaves, 100,000 pounds of jessamine blooms, 70,000 pounds of violets, 65,000 of acacia buds, 30,000 pounds of tuberose, and 5,000 pounds of jojoil flowers.

## Stock.

### Care of Sheep—Foot Rot, &c.

The *Rural New Yorker* says: "Now that wool is highly estimated among men, we should look well to our flocks, and so make the most of our opportunities.

"Irregular, insufficient, and injudicious feeding is as prevalent as fatal to the sheep. They need their supply of food at right times, in right quantities, and of the proper quality. Sheep should be prepared for, and fortified against, the enervating and relaxing influences of spring weather, by grain seasonably given. They need to be sheltered from all winter storms, and from all severe storms at any season of the year, particularly after washing or shearing. The practice of abandoning sheep to the elements, with no further care after grass comes, is barbarous, unchristian, and don't pay. General debility, colds, coughs, consumption, and a multitude of hereditary diseases, follow in that train. A shed should be in every pasture, or close by, where the flock can be driven when it storms; unfortunately, sheep don't always know enough to come in when it rains.

"Having been recently called a considerable distance to testify in a 'court of justice,' so called, as to the nature of the 'foot rot,' and the possibility of a remedy, and finding that very crude ideas exist on that subject, in spite of the intelligence of the age, and the general progress of knowledge, I will give my ideas briefly, for the general good.

"1st. Foot-rot can be cured. Whoever doubts it is grossly ignorant, and if his doubts are of long standing, probably hopelessly so.

"2d. The cure does not depend so much upon the efficiency of some particular medicine, as upon the general management.

3d. The first thing to do is to yard the flock, and select all that appear unaffected and put them by themselves. With a swab wash their feet between the hoofs with a strong solution of blue vitriol, or diluted nitric acid, or corrosive sublimate dissolved in alcohol, or something that will destroy any infection that may attach to the foot. Put them in a pasture where no diseased sheep have been, and carefully watch the first appearance of the evil. If a sheep appears at all lame remove it at once, and it may be best to re-examine and swab them all after about a fortnight. Watch them close for a few weeks, and don't let any sheep stay in the flock after it shows any signs of being affected.

"4th. Carefully examine all the lame sheep; re-

move with a sharp knife the deceased flesh and loosened horn or hoof, carefully avoiding to cut the live flesh, and then apply blue vitriol, or some other approved remedy, and put the sheep into a dry, clean place. Repeat that process once a week till they are cured—and cure them you can.

"Failures occur because people fancy there is some omnipotence in the medicine—whereas much depends upon judicious surgery, and more upon unremitting attention till the cure is complete. Cures will never be effected by semi-annual doctoring. The first application will cure the majority of the cases, but if you wait till they are re-infected before you look to them again, you are back to the starting place; and if you persevere till all are cured but one or two, and leave them to spread the infection, as is very often done, then you will never be rid of the disease. But if you follow it up skillfully, without omission, once every week, you will surely have them sound in about six weeks—unless, very rarely, the disease may be dormant for that time in cold weather, and in that case be ready for it when it comes out.

"No farmer should ever tolerate the foot-rot in his flock—it is a crime and a disgrace to suffer it to continue year after year. I have knowingly bought it a great many times, but I have waged war upon it unremittingly and successfully.

### To Test the Quality of Wool.

Take a lock of wool from the sheep's back, and place it upon an inch rule. If you can count from thirty to thirty-three of the spirals or folds in a space of an inch, it equals in quality the finest Electoral or Saxony wool grown. Of course, when the number of spirals to the inch diminishes, the quality of the wool becomes relatively inferior. Many tests have been tried but this is considered the simplest and best. Cotswold wool and some other inferior wools do not measure nine spirals to the inch. With this test, every farmer has in his possession a knowledge which will enable him to form a correct judgment of the quality of all kinds of wool. There are some coarse wools which experienced wool-growers do not rank as wool, but as hair, on account of hardness and straightness of the fibre.

OHIO POMOLOGICAL SOCIETY.—Dr. Warder was elected President of this valuable institution—the right man in the right place.

SEED POTATOES.—We have no more seed potatoes to spare, having received more orders than we can fill.

## Miscellaneous.

### Large Land Sales.

The Illinois Central Company has sold over sixty thousand acres of land during the last four months to upwards of one thousand purchasers, for \$677,715.32. The cash payments in the same period have been \$360,120.50. The immigration to this State this season is larger than any year since 1855. The Company will not sell large tracts of land on long credit for anything above 160 acres. The buyer must make a respectable cash payment. It sells forty and eighty acre tracts on seven years credit. We think forty acres of Illinois prairie, which cannot be surpassed by any prairie land, as likely to give a comfortable living and home as a half section out on the frontier, and the poorest settler ought to make \$500 to pay for it in seven years time.—*Chicago Tribune*.

—The land Department of the Illinois Central Railroad is now managed with the most consummate ability, and is in the hands of practical men, who not only look to the present but the prospective value of their operations. We have always been opposed to the selling of large tracts of these lands to speculators, which was inaugurated at an early day in this department, thus raising the price without benefitting the company. When lands are sold at a price beyond their value, it tends to the ruin of the buyer and lessens his ability to patronize the road. The true policy and the one now being pursued is to sell to each man what he can pay for and manage. The purchaser is not loaded down with debt, and he has the ability to improve and thus to give business to the road, as well as to pay for the land.

It has always been the policy of the company to build up the farmer and give him every facility in their power. The reduction of freights, the extra price for his products, the division of contracts and extension of time are all proofs of the care of the interest of the purchaser. Ed.

### Caty-did.

EFFINGHAM, ILL., March 10, 1863.

To the Editor of the Illinois Farmer :

DEAR SIR: We up here in enlightened Egypt have a way of getting some three months in advance when frost will really come, but as you Yankees don't believe in signs, I suppose you will not heed it, but it is valuable to the cane grower if he will attend to it notwithstanding prejudice. When I came to this country in 1857, in July, I heard a strange voice at night. I inquired who the stranger was and what was wanted, and received in answer that it was Mrs. Caty-did, and that she had come to tell us that Mr. Jack Frost was only six

weeks behind her. I took down my Thermometer register, where I register all great events as they pass, and registered Mrs. Caty-did's first appearance, which I have continued to do ever since, and will now give you the dates for the different years, together with the first frosts for the same years. The date for frost is, for the first time, the mercury fell to 32 degrees in each year, as we sometimes have white frosts at 45 degrees but it does no damage to vegetables until it falls to 32.

FIRST CATY-DID.	FIRST FROST.
1857—July 17.	October 17th.
1858—July 9.	October 9th.
1859—July 20.	October 19th.
1860—July 8.	October 12th.
1861—July 24.	October 24th.
1862—July 27.	October 20th.

This I have just copied from my register which is as correct as my account book, and will show that Mrs. Caty-did's annual visits may be turned to good account if attended to.

GEO. R. HUFFMAN.

—This is decidedly a new way of foretelling frosts, though not Yankee born. We have no great faith in signs, at the same time these things do not pass unheeded, and we give the remarks of Mr. H. for what they are worth. Ed.

### To Destroy Mice in Green Houses.

A subscriber of the Farmer, who is the proprietor of an extensive nursery, has practiced the following method of successfully ridding his premises of these troublesome little "varmints." He takes a few pumpkin or squash seeds, cuts them half way open, and with the point of a pen knife drops a little arsenic into each seed, place them around on the shelves where it is dry. After this is practiced a few times, your house will be entirely free from mice. This is much better than to have cats about, as they often do more injury than the mice.

### Glue for Ready Use.

To any quantity of glue use common whiskey instead of water. Put both together in a bottle, cork it tight, and set it away for three or four days, when it will be fit for use without the application of heat. Glue thus prepared will keep for years, and is at all times fit for use, except in very cold weather, when it should be set in warm water before using. To obviate the difficulty of the stopper getting tight by the glue drying in the mouth of the vessel, use a tin vessel with the cover fitting tight on the out side to prevent the escape of the spirit by evaporation. A strong solution of isinglass made in the same manner is an excellent cement for leather.—*Ex.*

### Theory and Practice.

In a recent number of *Blackwood's Magazine*, Bulwer tells the following good story, to illustrate the difference between the mere possession of knowledge and its application in practical life :

A certain nobleman, very proud of the extent and beauty of his pleasure grounds, chancing one day to call on a small squire, whose garden might cover about half an acre, was greatly struck with the brilliant colors of his neighbor's flowers. "Ay, my Lord, the flowers are well enough," said the squire, "but permit me to show you my grapes." Conducted into an old-fashioned little green house, which served as a vinery, my Lord gazed, with mortification and envy, on grapes twice as fine as his own. "My dear friend," said my Lord, "you have a jewel of a gardener; let me see him!" The gardener was called—the single gardener—a simple looking young man under thirty. "Accept my compliments on your flower-beds and your grapes," said my Lord, "and tell me if you can, why your flowers are so much brighter than mine, and your grapes so much finer. You must have studied horticulture profoundly." Please your Lordship," said the man, "I have not had the advantage of much education; I ben't no scholar; but as to the flowers and the vines, the secret as to treating them just came to me, you see, by chance."

"By chance? explain."

"Well, my Lord, three years ago, master sent me to Lunnon on business of his'n; and it came on to rain, and I took shelter in a mews, you see."

"Yes, you took shelter in a mews;—what then?"

"And there were two gentlemen taking shelter too; and they were talking to each other about charcoal."

"About charcoal? go on."

"And one said that it had done a deal o' good in many cases of sickness, and specially in the first stage of the cholera, and I took a note on my mind of that, because we'd had the cholera in our village the year afore. And I guessed the two gentlemen were doctors and knew what they were talking about."

"I dare say they did; but flowers and vines don't have the cholera do they?"

"No, my Lord; but they have complaints of their own; and one of the gentlemen went on to say that charcoal had a special good effect upon all vegetable life, and told a story of a vine-dresser in Germany, I think, who made a very sickly poor vineyard one of the best in all these parts, simply by charcoal dressings. So I naturally pricked up my ears at that, for our vines were in so bad a way that master thought of doing away with them altogether. 'Ay,' said the other gentleman, 'and see how a little sprinkling of charcoal will brighten up a flower-bed.'"

"The rain was now over, and the gentlemen left the mews; and I thought, 'Well, but before I try the charcoal upon the plants, I had better make some inquiry of them as aren't doctors; so I went to our nurseryman, who has a deal of book-learning, and I asked him if he'd ever heard of charcoal-dressing being good for vines, and he said he'd read in a book that it was so, but had never tried it. He kindly lent me the book, which was translated from some forren one. And, after I had picked out of it all I could, I tried the charcoal in

the way the book told me to try it; and that's how the grapes and the flower-bed came to please you, my Lord. It was a lucky chance that I ever heard those gentlemen talking in the mews, please your Lordship."

"Chance happens to all," answered the peer, sentimentously; "but to turn chance to account is the gift of the few."

His Lordship, returning home, gazed gloomily on the hues of his vast parterres; he visited his vineries, and scowled at the clusters; he summoned his head gardener—a gentleman of the highest repute for science, and who never spoke of a cowslip except by its name in Latin. To this learned personage my Lord communicated what he had seen of the benignant effects of charcoal, and produced in proof a magnificent bunch of grapes, which he had brought from the squire's.

"My Lord," said the gardener, scarcely glancing at the grapes, "Squire ——'s garden must be a poor ignorant creature to fancy he had discovered a secret in what is so very well known to every professed horticulturist. Professor Liebig, my Lord, has treated of the good effect of charcoal-dressing, to vines especially; and it is to be explained on these chemical principles"—therewith the wise man entered into a profound disputation, of which his Lordship did not understand a word.

"Well then," said the peer, cutting short the harangue, "since you know so well that charcoal-dressing is good for vines and flowers, have you ever tried it on mine?"

"I can't say that I have, my Lord; it did not chance to come into my head."

"Nay," replied the peer, "chance put it into your head, but thought never took it out of your head."

My Lord, who, if he did not know much about horticulture, was a good judge of mankind, dismissed the man of learning; and, with many apologies for seeking to rob his neighbor of such a treasure, asked the squire to transfer to his service the man of genius. The squire, who thought that now the charcoal had been once discovered, any new gardener could apply it as well as the old one, was too happy to oblige my Lord, and advance the fortunes of an honest fellow born in his village. His Lordship knew very well that a man who makes good use of the ideas received through chance, will make a still better use of ideas received through study. He took some kind, but not altogether unselfish, pains with the training and education of a man of genius whom he had gained to his service. The man is now my Lord's head forester and bailiff. The woods thrive under him, the farm pays largely. He and my Lord are both the richer for the connection between them. He is not the less practically painstaking, though he no longer says "ben't" and "his'n;" nor the less felicitously theoretical, though he no longer ascribes a successful experiment to chance.

### Farming in Union County.

The wheat crop looks about as well as usual, but less than in former years was put in last fall.

Clover where sown is quite a refreshing sight.

We are getting ready to plant all the cotton we think we can cultivate.

Strawberries are doing well thus far, and for



the crop to succeed we require timely showers, such as are usual during this season. Patches two years old which have been neglected seem about run out; those which were well cultivated seem as though they would pay best. Much difficulty existed last year in making the plants grow. This was pretty generally the case all through the West.

Our peach crop has been much injured. On low lands the buds are all killed. I hear that the seedling varieties are most hardy, but presume this remark applies only to old and partly dried up trees. A budded peach tree is much more hardy when ten than when five years old, that is, supposing the cultivation the same in one case as in the other.

The farmers labor under some slight embarrassment just now, as several have been invited to go south. They would decline if they decently could, but for some reason they accept. Several gentlemen from Jonesboro will go along with them. Whether they are going down there to raise a crop I cannot say, but I hope they will enjoy themselves.

Sometimes things very remote, are nevertheless closely connected; and I remark that the visit of these gentlemen to the South will probably result in a more vigorous growth of our fruit trees. You are probably aware that our orchards have been troubled during the past winter with a very venomous worm, which in most cases has killed the trees. Our only remedy has been a compound of charcoal, nitre and sulphur, to which was added a round substance of any hard metal, but there was such a magic in the receipt that it was only effective when applied at a certain time, difficult to determine.

There is an additional magic about the matter, which is that when these gentlemen go south this venomous worm probably will go with them.

We call this a pretty fair horticultural prospect.  
N. C. M.

—Even in pomonal Egypt there appears drawbacks to fruit culture. If eternal vigilance is the price of liberty, unceasing care and skill is necessary even there. Years ago we predicted to our friends thereaway that when there budded peach trees obtained maturity they would prove a match in hardiness to the seedlings. This is now being verified.

Clover will grow in Egypt after all, especially in the timber regions, and we will not despair of it on the prairie near Centralia and Du Quoin.

There is no doubt that the poor white trash being sent south from near Anna will be a blessing to the fruit growing community—fruit stealers and malicious mischief makers in times of peace, and

traitors to their country in times of war. School houses are now springing up in that hitherto benighted part of the State, and with a good ridance of the most malicious of these ungenial spirits we shall soon see Egypt rise in the scale of moral progress.

“Where all save the spirit of man is divine.”

—Ed.

### “Oriental Sugar Root.”

We have received from a Post Master in Michigan a circular “Highly Important to the Farmers and Gardeners,”—so called—and calling their attention “to the new vegetable called the Oriental Sugar Root, about which there has been so much excitement in Europe for some months past.”

The history of this Oriental Sugar Root, as set forth in this circular, is interesting, and we copy it:

“This root was first discovered to Europeans by C. Bruce Campbell, Esq., of Edinburgh, Scotland, while traveling in Central Asia in 1856. The Orientals used it for food as commonly as we do the Irish potatoe, and Mr. Campbell found it so agreeable to his taste and health that he was induced to inquire into its nature and properties, which led to the most satisfactory results. He found it not only an excellent article for both man and beast, but to contain saccharine matter of very superior quality which was manufactured into sugar and universally used by the inhabitants. In a climate as cold as Scotland, with the miserable cultivation of the Asiatics, an English acre produced an average yield of about 1,400 *avgas*, or 800 bushels. These facts induced him, on his return to Scotland, to take with him a quantity of seed to experiment upon. He sowed and cultivated the same as with carrots, and met with the best of success; producing over 1,000 bushels to the acre. With an ordinary cider mill and a hand press, he made a superior quality of white sugar, at the rate of twenty pounds to the bushel, by simply boiling and cleansing as the American Farmers do the sap of the sugar maple. Last year Mr. C. planted 40 acres, yielding over 35,000 bushels, from which he manufactured 300,000 pounds of white sugar and fatted 500 beeves, making a net profit of £3,000 (\$15,000.) Mr. C. has introduced the Sugar Root until it is quite generally grown in many portions of Europe; and in some districts of France it has entirely superceded the beet for sugar making purposes,” &c., &c.

It is proper for us to say something about this wonderful root; and we want to say,

1. No man, with common sense, it seems to us, could read the above without being convinced at once that the party who publishes this circular, with view to get orders for seed, is attempting a swindle. The marvelous qualities of this root are told with far too few qualifications to insure it against the incredulity of thinking men. But unfortunately for themselves there is too large a class



of men who do not think; and for this class we add what follows.

2. It is a little strange to men who see English, Irish, Scotch and French Agricultural papers weekly, that there should have been such an excitement in Europe over this "root," and these papers have taken no notice of it. We have seen no evidences of such "excitement," and yet we see said papers. We do not believe there has been any such excitement; and if what it asserted concerning the product of this root in sugar, as grown by Mr. Campbell, is true, we think the English and Scotch Agricultural Press would have had something to say concerning it.

3. Again, Mr. C. is not the first traveler who has traveled in Central Asia, (if, indeed, there is any such man as this "C. Bruce Campbell, Esq.," and yet no one within our knowledge has ever mentioned such a wonderful esculent. We don't believe the Asia story.

4. We do not believe "a superior quality of white sugar" was ever made from anything by "simply boiling and cleansing as the American farmer does the sap of the sugar maple. We have never yet seen any evidence that it has been so done.

5. The author of this circular has drawn his figures of the yield per acre a little too strong. For instance, he asserts that forty acres planted by Mr. Campbell, yielded over 35,000 bushels, which would be over 875 bushels per acre. And each bushel yields twenty pounds of "a superior quality of white sugar!" Then 875 bushels multiplied by twenty pounds, would give the nice little product of 17,500 pounds of sugar as the product of one acre!—of white sugar! Wonder if it is not as transparent as glass, too? It seems to us it must be?

6. But in the publication of terms of packages of seed, he has been more shrewd. For, as an additional inducement to purchasers of seed—he having only a limited quantity, and the above recommendations being scarcely an inducement—he offers two excellent publications—the Illustrated Annual Register of Rural Affairs, and the Country Gentleman—as premiums for orders for seed. That is a very good movement—far more ingenious than the story of the history of the "Oriental Sugar Root" itself. The coupling the names of this respectable annual and valuable journal with the humbug will doubtless deceive a few, but we feel safe in saying such use is not authorized by the publishers of said Annual Journal.

7. It is significant, too, that the proprietor of this seed does not use the Agricultural Journals as mediums for enlightening the Agricultural world

upon the marvelous merits of this "Sugar Root." No communications have ever appeared in an American journal concerning it, and no extracts from foreign journals either. No one has seen an advertisement in an American Agricultural Journal. Why not? Because it is too transparent to withstand the looking into that would be given it. We have devoted it this much attention, because we have reason to believe that this circular has been extensively propagated through the West. We will be glad to furnish the police of our neighboring city, Utica, with the name of this would-be great public benefactor, and suggest that his seed operations be looked into officially.—*Rural New Yorker*.

—We have been patiently waiting for some new humbug, and are delighted with so rich a one. We had begun to fear that all of this class had turned army sutlers, but we see one of the tribe is left.

Sensible farmers, who take and read agricultural papers, are not often gulled. But that large class who know enough without book farming are the dupes, and in their hands will be found the "sugar root."

Last year a tree peddler came round through the central part of the State—not a thousand miles from Champaign and Vermillion counties, with a picture of the Baldwin apple, which he represented as new and valuable, and sold large numbers of them at a half a dollar each. He was shrewd enough not to sell anything else. O no, not him. The new apple was to supercede all others. But not a man who reads an agricultural paper was sold, though several of those who were are now taking the FARMER, and think they are wiser.—Ed.

From the Wisconsin Farmer.

### A Plea for Certain Jackasses.

The word "certain" in our caption is intended simply to encourage the hope that we are not about to espouse the cause of jackasses in general. In other words, it stands as an assurance that we do not mean to be personal!

The ass! of what innumerable, perpetual sneers and jeers, curses, kicks, and merciless starvation, has he been the object and subject! Venerable for his antiquity, for individual longevity, for the sagacity of his mind, and for unequalled sageness of physiognomy, circumstances and endowments which one would naturally suppose would have secured to him the respectful consideration of the world—he nevertheless somehow, and most strangely, stands the symbol of the utmost obstinacy, stupidity and meanness.

In our opinion, he has suffered this unmeasured abuse quite too long, and, however unseemly it

may appear in us to do so, we hereby declare our purpose, now and henceforth, to champion his cause.

We shall begin by setting up for him, or more properly for his hybrid progeny, the mule, the following claims:

1. He is much more easily and cheaply reared than his cousin, the horse.
2. He eats but little more than half as much when matured.
3. He is satisfied with and thrives upon a coarser and less expensive class of provender.
4. It costs less to keep him in harness and in shoes.
5. He is proportionally stronger.
6. He is very much tougher.
7. He is less liable to disease.
8. He has more sense and docility.
9. He is better adapted to some important kinds of work.
10. He is a truer puller and, when loaded, a quicker traveler.
11. He sells for a better price.
12. He lives more than twice as long.
13. He is better looking!

In nothing but fleetness is he excelled by the horse.

Farmers, if the above propositions be true, why not go into the business of mule raising? If not true, you are at liberty to take up the glove we have thrown down, and show wherein we are at fault. Friends of the horse, to the rescue!

### Fruit Grower's Society of Eastern Pennsylvania.

At the annual meeting of this society, held at Harrisburg, on the 4th, 5th and 6th of February, the grape question came up, and was, as usual, a very animated one. There was not much difference in the experience of members over last year, except that there was a very prevailing impression that the old Elsinburg was one of the very best for late keeping, and superior, in many respects to hosts of the new ones. Rogers' No. 1, No. 15, Creveling, To-Kalon, Clinton, Maxatawney, Cuyahoga, Graham, Alvey, all had numerous advocates; and one gentleman expressed great partiality for the Northern Muscadine, and Mr. Knox said Taylor's Bullitt was growing in favor in Missouri.

Several gentlemen were satisfied with Isabella, and others wished nothing better than Catawba, when it came good, which it "generally would do when not too severely pruned."

Mr. Knox thought the Delaware too sweet for a regular table grape, but one of the best for wine.

The Hartford Prolific most members thought indispensable for being a few days earlier than the Concord, but worthless after that good sort came in. The Concord, in fact, was the great grape of the Convention. It is, indeed, surprising that a great grape that has been so vilified and many ways abused, should have fought its way so successfully to popular eminence so soon. Flora was considered identical with Bland. Mr. Hoopes said they had been so mixed together on the same plate and set before good judges, who failed to separate them.

The President remarked that fruit was often difficult to identify. He had seen Maxatawney from three localities last year, and all three were of different shades of color—white, green, and amber color.

The vote on grapes was heavy, and was as follows:

Concord.....	25
Delaware.....	23
Elsinburg.....	12
Rebecca.....	9
Isabella.....	8
Catawba.....	8
Hartford Prolific.....	5
Creveling.....	3
Diana.....	3
Cassiday.....	3
Alvey.....	2
Clinton.....	2

The grape question, in connection with wine, came next, opening by a report from the Wine Committee of last year, which stated that they had been converted by an article in the "Gardener's Monthly," by Mr. Husmann, of Hermann, Mo., and by some wine of Norton's Virginia from the same, which the Committee thought approaching closely some of the Burgundies of Europe.

Mr. Knox thought good eating grapes of more importance than wine grapes.

Most of the members seem to have experience only with Clinton, Isabella, and Catawba. The last was considered best in quality, though its unreliability in ripening, and small quantity of juice per pound of grapes was against it. In certainty of crop and weight of juice, Clinton was the favorite and received double the vote of the Catawba. Delaware, Diana, Alvey, and Isabella, received scattering votes, showing that wine had been made successfully by some members from them.

—A poor author, who excites the hostility of the critics, is covered all over with quills like a hedge-hog. But he differs from the porcupine in the fact that the quills are shot into him instead of being weapons for him to shoot into others.

### Grafting Large Apple Trees.

An Ohio fruit grower gives his experience in grafting large apple trees as follows:

"Five years ago I saw a piece recommending grafting large limbs near the body and the advantages to be derived therefrom. I had never done so before, but thought the plan a good one; so I went at it without reasoning, and recommended it to others. But in grafting orchards over, and taking notice of the different ways, I have come to the following conclusion: Never graft the whole of a tree that has but few long limbs, when by doing so it leaves the rest bare to the hot sun; but when there is plenty of small limbs for shade, and to draw the sap, I would graft enough to form a new top. Never cut a limb (while grafting,) without grafting it, if it can be helped, nor cut a limb or sucker for one or two years after. I have killed and seen a great many good trees killed by cutting the top and letting the sun strike too hot on the remaining limbs. I have seen large thrifty limbs with the bark all off on the top, where the sun hit, and on the under side, while limbs of the same tree, in the shade, were sound. I have grafted in every week, from the first of March to the first of June, with about equal success. I use linseed, or the new rock oil instead of tallow for the wax, but not quite as much oil as tallow."

Another writer in one of our exchange papers says:

"In regard to the proportion of limbs which should be ingrafted, much will depend upon the way in which the trees have been pruned before grafting. I should engraft about one-half of the number of the bearing limbs, leaving the remainder for one year, which will preserve the vitality of the tree better than if all be removed. In grafting, care should be taken to select such limbs as will, when grafted, form a top of sufficient expansion for the body of the tree. The next spring after grafting, I would remove about one-half of the remaining ungrafted limbs, and the spring following about one-half of those still remaining, and the third year after grafting, take out all the natural limbs, leaving only the grafts. During the time in which the grafted limbs remain upon the tree, there will be a production of much natural fruit, very much improved by close pruning, and without any injury to the grafts, the tree being much benefitted by a portion of the old limbs remaining for the time suggested."

### Number of Seeds in a Bushel.

Finding a diversity of opinion among farmers in regard to the quantity of seed necessary to stock

a given quantity of ground, and thinking that some others as well as myself might be curious to know the number of grains in a bushel, and how many would fall on a given quantity of ground, I have made out the following statement, with a tolerable degree of accuracy, by computation, after counting a small quantity of the several kinds mentioned.

Timothy seed numbers 41,828,360 grains to the bushel, and if sown on an acre of ground would give about six and one-half to the square inch. Would not one be better than six? Clover of medium size, what we here call Eastern clover, numbers about 17,400,960 to the bushel, and gives about two and three fourths to the square inch on an acre. Rio Grande wheat fair and plump, numbers about 559,280 to the bushel, and gives about twelve and three-fourths to the square foot. Rye numbers 898,880, and gives about twenty and one-half to the foot.

H. BRIGGS.

### Growing Peppermint.

Few people are aware that more peppermint is grown in the adjoining county of Wayne, N. Y., says the Rochester "Democrat," and more of the essential oil of peppermint manufactured in that locality than at any other place on the globe. H. H. Hotchkiss, of Lyons, is one of the largest cultivators of the plant and manufacturers of the oil in the whole country. His oils command the markets of the world, and bring the best prices in London of any other peppermint oils. He buys large quantities of the oil, of the neighboring cultivators, which is refined and bottled by him. The growth of the peppermint and the manufacture of the oil, is a vast source of revenue to Wayne county. The valley of the Clyde river contains many acres devoted to the culture of this plant. The mode of culture is somewhat similar to the cultivation of the rice crop, in South Carolina. The plants are usually set upon low ground bordering the river, which is liable to be covered with water during the spring inundations. The plant derives great benefit from the annual overflow.

The ground to receive the plants is usually prepared with great care, and is carefully cultivated the first year. The crop reaches its most vigorous growth and abundant yield the second year. The third season it has nearly covered the ground, and the yield is much less. At the end of this season the old roots are all taken out, and it is replanted in the spring. This process of cultivation requires a vast amount of labor, and is, we are informed, about to give way to a new process, which requires less labor, and makes the crop much more productive. We learn from Mr. Foster, the station-

agent at Lyons, that a gentleman near that place, who is an extensive cultivator of this plant, plows over his peppermint field in the autumn, leaving all the roots in the ground, and the next season the plants start early, giving a fine, luxuriant growth, almost free from grass and weeds. This process can be repeated year after year, and it is thought will supersede all other methods of cultivation.

### Wool—Prospective Demand and Prices.

The panic in gold and exchange, says the New York "Economist," under date of March 30th, has had a very depressing effect upon our wool market the past week, and prices have materially declined. Domestic fleece is now offered at 85@95c, with no buyers, and pulled wools at 80@90c, with the same result. Foreign wools are very heavy, and it is difficult to effect any sales, at no matter what concession. Buyers seem to have lost all faith in the staple, and have refused to purchase, except to supply more urgent wants. The unsettled condition of finances, and matters generally has caused a cessation of operations, both on the part of buyers and holders. Some weak holders greatly frightened, have been ready to sell at almost any price, and buyers have been equally fearful of buying. We find, however, in our perambulations, men who appear to be as strong believers in the staple as ever, and many, too, that refuse to make any concession in their views. It is probably the case, however, that "the wish is father to the thought," and we incline to the opinion that wool, like other merchandise, will have to decline in price somewhat before the market can become active again. With a decline of 20 per cent. in gold, and with nearly a corresponding decline in all descriptions of merchandise and raw materials, it is no more reasonable to expect that wool will not be an exception. There must yet be an active demand for wool, but we think it will be impossible to start the trade, without starting on a lower scale of prices. After the market is once started again, the immense wants of the army and the country will undoubtedly cause a second advance, and we will probably see as high prices in the end as any that have been paid since the first of January. The wants of the country remain as they were before the gold panic, but now, with a panic in gold and nearly all descriptions of merchandise we must reverse all our former ideas, take a new start, and finally we will probably succeed as well as if the gold panic had been delayed until after the first of July. Wool is yet to form the chief material for supplying clothing to the civilian trade

and to the army, just as we stated in previous reports. In all likelihood the conscription will be enforced, which will oblige the Government to call for large amounts of clothing in addition to that already on hand, and to make this clothing every intelligent man believes that with the supply of wool now on the market such an active demand will be experienced that the material will have to advance. Nevertheless, as we have stated above, we believe the trade will have to commence by establishing a lower scale of prices, and afterwards work up the price as the demand increases. The sales include 30,000 pounds fleece at 86@100c per pound, the latter for a very small lot, the most being sold at 86@95c; 10,000 pounds pulled at 90@95c.

### The French Merino Sheep.

The Rambouillet flock of sheep was formed in 1786, by Louis XVI, with the finest Merino specimens, chosen in the most renowned sheep-folds of Spain—in other words, among the Leonese breeds, principally that of Cavegne and Negrete. The animals comprising the flock were originally small, as are also the Merinoes of Saxony, which are drawn from the same sources. But under the mode of treatment followed at the Rambouillet sheep-fold, the flock, while preserving an absolute purity, and propagating itself without the least *mesalliance*, has acquired a shape which renders its specimens the largest among the unmixed Merino breeds. The animals have remained thick and short, but they have great size and abundant wool. It appears to be generally understood that the sheep with "cravats" and very marked dew-laps are the greatest bearers of wool, but they are also the most difficult to fatten.

**TRUE BENEVOLENCE.**—The true spirit of benevolence is as truly manifested in our treatment of the brute creation as in founding charities and the relief of the poor and distressed. A beautiful illustration of true benevolence was exhibited upon one of our streets a day or two since. A young colt belonging to one of the teams manifested distress for the want of water, and sought in vain for a place to quench its thirst. A man noticing it, and having no pail, took off his hat, pumped it full of water and gave it to the thirsty colt. He continued to fill his hat until the colt was perfectly satisfied.

—A man is apt to think that his personal freedom involves the right to make his fellow-men do just as he pleases.

From the Wisconsin Farmer.

### Apple Orchards—Planting New Trees between the Rows.

Permit me, Mr. Editor, to trespass on your time and patience for a little advice. I ask your opinion because I have followed you through the pages of the Farmer, and know that you are interested in fruit-raising, and that you have traveled much through the State, and believe you have been as much interested in observing the growth of fruit trees as in eating the fruit.

I have an orchard planted to trees in squares of thirty feet apart. I wish to plant more trees, but I have no more land than I wish to occupy as an orchard. I came from Vermont, where apple trees bear earlier here and are more dwarfish in their habits. Now, will it be profitable or advisable to plant as many more trees on the ground, so that they shall stand in squares fifteen feet apart? I have been told to do so, but I wish to appeal to your large observation and good judgment in the matter.

JOHN L. SEXTON.

RUSSEL, Wis., April 1863.

ANSWER.—Fifteen feet apart would be rather too close for apple trees. If in your stead would plant one tree in the center of each square of four trees. This would give you half as many more trees than you now have, and leave no two nearer than twenty feet apart. The rows will be diagonal in their direction across the field, or, in other words, they will stand in what is known as the *quincunx* arrangement. Ed.

—We have an orchard on our Leyden farm set twenty four feet apart each way; being satisfied that they were too far apart we have set in each row as many more trees, but we selected those of upright growth that would occupy less than the usual space. In this instance they were the Keswick Codlin. This orchard now contains twelve hundred trees on ten acres. We prefer to set in the old rows for the reason that it will be much more convenient to cultivate the intermediate space between the rows, which to us is of no small importance. Trees will bear crowding in the rows if there is air space between them. In setting an orchard considerable will depend on the habit of the trees, whether upright or spreading in their habits. Many varieties, like Summer Rose, Red June and Hawthornden, occupy but little space, compared to Rhode Island Greening and Winsap. In setting an orchard rather close, it would be well to alternate these varieties in the same row.

Ed.

—In ancient days the precept was, "Know thyself." In modern times it has been supplanted by the far more fashionable maxim, "Know thy neighbor and everything about him." ]

### Grub in the Head of Sheep.

Dr. Dadd, in a communication to the Prairie Farmer, says the only way to prevent grub in the head of sheep, is to put plenty of "grub" into the stomach of the animal—and that it is a well known fact that sheep properly attended to, well fed, and housed, are never troubled with the parasite known as the grub

From the Country Gentleman.

### Humbugs.

We find copied into an exchange an article which is credited to the "Rural New-Yorker," but which in some unaccountable way escaped our notice when it appeared in that journal—headed "Oriental Sugar Root," and denouncing an attempt to palm off upon the agricultural community by means of circulars, the seed of some extravagantly laud plant which has not been heard of as yet through any other source. As we have never seen one of these circulars, nor ever had any knowledge of any kind either as regards the plant itself or of the parties introducing it, we might not refer to the subject, but from the fact, which we are also first apprized through the article of our cotemporary, namely, that the circular in question "offers two excellent publications—the Illustrated Annual Register of Rural Affairs, and the Country Gentleman—as premiums for orders for seed." The "Rural New-Yorker" of last week adds: "That is a very good movement—far more ingenious than the history of the 'Oriental Sugar Root' itself. The coupling of the names of this respectable annual and valuable journal with the humbug will doubtless deceive a few, but we feel safe in saying such use is not authorized by the publishers of said annual and journal."

The devise of this individual certainly deserves credit of great ingenuity, for it might seem to connect his operations in some way with us, at least by implication, if indeed he should not have ventured even farther. We shall be glad to receive a copy of the circular for examination, but think that no further avowal than that already given is necessary, of our entire ignorance of the whole enterprise, and of our decided opinion that it is a complete humbug. Nevertheless, it is certainly to be hoped that those who have been led to order seed, will also have been furnished with the promised copies of this journal and of the Annual Register, since they may possibly receive in that way a better and fuller equivalent for their money, than they will ever harvest in roots or "superior white sugar at the rate of twenty pounds to the bushel."

And while we are on the subject of humbugs,



we may refer to one exposed in the last number of the New York Observer. The editor of that excellent paper says: "One of the latest shaves is by circulars for an Agricultural Magazine for payment in advance. This 'sell' may serve the miscreants another year. It has worked for one. Their circulars, or sample copies of the Magazine are sent widely over a part of the State the first year, and the balance retained for victims during a second year. They give the number of the office, but it is a number on a back street, and there is neither sign nor other indications of such a Magazine about the entrance. There is a pretense of a desk in an office jointly occupied by a half dozen soulless vagabonds, each having a separate system of swindling the mightily good natured and credulous public. If you call to obtain redress for some friend in the country, who is a dollar out of pocket without return, you are assured the articles were promptly mailed, or else, oftener, that the book-keeper is out, and the matter cannot be looked into. You ask for a late number of the Magazine, but not a copy is within the pretended office. The fact is, that while they pretend that the Magazine is well advanced into its second volume, there has, in reality, never been but one number printed. That was revamped at the opening of the second year, and a new date and Volume II. inserted. The green ones in the country have been sufficiently numerous to afford support to three or four as craven hearted scamps as are often allowed at large. Letters of complaint and remonstrance multiply upon these base fellows, and the city friends of the victims repeat their calls and demands, until any one office or location becomes unsafe for the continuance of the fraud, and they disperse to some other streets, each to originate some new form of robbery to practice upon the public. A stampede of this kind has just taken place among one of these inglorious cliques. Look out for circulars of some mighty marvel."

We think there have been more than one of these swindling concerns in the city of New York, during the last year. They advertise widely the paper or magazine they pretend to publish, with the offer of attractive premiums of all sorts to gull the credulous. Their schemes are facilitated by the wonderfully prevalent eagerness for change, characteristic of the great number of newspaper readers,—so many of whom will throw aside a journal they may have been in the habit of reading, and which they know to be well established and thoroughly trustworthy, for any catch-penny affair that springs up and that can promise the most enormously. Such schemes are also facilitated by the fact that the publishers of high stand-

ing have in some degree,—and, as we think, most unwisely—educated the public to expect a *douceur* of some sort as a premium on their subscriptions. Every offer of the kind however should be scrutinized closely, and no confidence whatever reposed in any which are not fully authenticated by names long and well known to the reading public.

—We have on our table one of these humbugs in the way of a valuable scientific magazine. People cannot be too careful in regard to these things. They are of almost daily occurrence, and one would think they could never succeed, but the fools are not all dead. This plan of paying people to subscribe for a paper should be sufficient to condemn it.

Ed.

### Fairbank's Scales.

In a recent number of the Boston Daily Evening Traveler, is the following report of a case tried in the Superior Court of that city:

The plaintiffs claimed \$90.00 balance due for a platform scale sold defendant. The defence was, that the scale was to be equal to a sample of Fairbanks' make. He claimed that it was inferior, and therefore demanded a deduction from the price. Evidence was introduced to show that the scale supplied was not of more than half the strength of the Fairbanks' Scale, with which it was to be equal in every respect. Verdict for plaintiffs \$64.60.

For the Illinois Farmer.

### Agricultural College—Grant of Lands to the State of Illinois.

*To the Agriculturalists and friends of Agriculture throughout the State:*

It is doubtless known to all of you that the magnificent donation of lands by the Congress of the United States to the State of Illinois, for the purpose of establishing, by ample endowment, a system of agricultural education on a substantial, enduring basis, was accepted in due form by the General Assembly at its last regular session.

What now remains to be done is, to dispose of this grant, by suitable legislative enactment, in such manner as will secure, beyond peradventure, two things:

1st. The fulfillment of the condition upon which the grant rests, so that its object will not entirely fail; and

2d. The attainment of the greatest possible benefit to the industrial classes of the whole State, whose highest interests it was specially designed to promote.

Impressed with the paramount importance of the subject in its relation to the welfare of our State for all future time—anxious that it may receive

that careful deliberation and discussion which its consequence demands, and that, too, before it is finally acted upon by our Legislature, we respectfully invite the friends of agriculture throughout the State, to meet in convention at the rooms of the State Agricultural Society, in Springfield, on Tuesday, June 13th, 1862, to consider this subject and present their views to the Legislature, which will then be in session.

JOHN A. KENNICOTT, Cook Co.

WM. S. WAIT, Bond Co.

JAMES N. BROWN, Sangamon Co.

WM. H. VAN EPPS, Lee Co.

S. B. CHANDLER, St. Clair Co.

LEWIS ELLSWORTH, DuPage Co.

A. B. McCONNELL, Sangamon Co.

B. G. ROOTS, Perry Co.

R. H. HOLDER, McLean Co.

E. H. BEEBE, Jo Daviess Co.

C. W. WEBSTER, Marion Co.

JOHN P. REYNOLDS, Sangamon Co.

Papers throughout the State please copy.

### Field Trial of Agricultural Implements, &c.

This trial will be held under the supervision of the Executive Board of the Illinois State Agricultural Society, near Decatur, Macon county, commencing on Monday, the 21st day of September, 1863, and continuing during that week.

In accordance with what is believed to be correct policy, no premium will be awarded to any farm implement, except upon actual trial in the field.

Encouraged by the substantial success of the trial of Harvesting Machines in 1862, the Board have determined to offer to inventors and manufacturers of earth-displacing implements a similar opportunity for competition at the time stated, not doubting that the interest felt will be as great, and the response as general as in the former trial.

The preparations for this trial will be as perfect and complete as experience will enable the Board to make; and we feel confident the citizens of Decatur will heartily co-operate to ensure entire satisfaction to those in attendance. The region selected is almost the very center of the State, is situated at the crossing of the Great Western and Main Trunk of the Illinois Central Railroads, and its progress and thrift may be inferred from the fact that the population of Macon county has nearly quadrupled within ten years past.

The railroads named, with a spirit of liberality not excelled, will afford every reasonable facility, and one of them, as will be observed, adds \$500 to the list of premiums.

No point in the west will more certainly command a large attendance of visitors, and we trust manufacturers will not permit the opportunity to pass unimproved.

The following is the programme:

For the best two-horse plow for general purposes—Society's Gold Medal.

For the best two-horse plow for sod or turf—Society's Silver Medal.

For the best one-horse corn plow—Society's Silver Medal.

For the best one-horse single shovel plow—Society's Silver Medal.

For the best one-horse double or treble shovel plow—Society's Silver Medal.

For the best trench plow—Society's Silver Medal.

For the best subsoil plow—Society's Silver Medal.

For the best newly invented implement by which the soil can be well broken up and thoroughly prepared for seeding at less cost than by ordinary plowing—Society's Gold Medal.

For the best approved ditching Machine for making open drains, combining efficiency, portability and cheapness, so as to warrant its adoption and general use by the farmers of Illinois—Society's Silver Medal.

To which the Illinois Central Railroad adds, as a special premium—\$250.

For the best one-horse cultivator—Society Silver Medal.

For the best two-horse independent cultivator—Society's Gold Medal.

For the best two-horse cultivator, with combination for seeding and planting—Society's Gold Medal.

For the best two-horse harrow—Society's Silver Medal.

For the best field roller—Society's Silver Medal.

For the best grain drill—Society's Silver Medal.

For the best corn planter—Society's Silver Medal.

For the best broad-cast grain sower—Society's Silver Medal.

For the best practicable and approved machine to cut and shock corn—Society's Silver Medal.

To which the Illinois Central Railroad adds, as a special premium—\$250.

#### SUPERINTENDENT OF TRIAL.

Ex-President C. W. Webster, Salem, Marion Co., Ill.

#### AWARDING COMMITTEE.

Amos C. Stedman, Chairman, Dixon, Lee Co., Ill.

G. G. Weeks, Knoxville, Knox Co., Ill.

S. M. Parsons, Chatham, Sangamon Co., Ill.

Samuel Graham, Paris, Edgar Co., Ill.

Wm. Watkins, Greenville, Bond Co.

Other committees will be appointed by the Board if found necessary.

On Monday, September 28th, all implements tested must be placed on exhibition in the Mechanical Department at the Fair.—Dr. Wm. Kile, Superintendent.

The awards will be announced and the insignia thereof affixed to the prize implements on Wednesday, September 30th, the third day of the Fair.

For further information address

JOHN P. REYNOLDS,

Cor. Sec. Ill. State Ag. Society, Springfield.

### Abuse of Curb and Check Rein.

We have a serious intention of erecting ourselves into a Permanent Institution for the Relief of Distressed Animals.

As we go upon our daily beat through the city, our sense of "horsemanship" is almost daily outraged by what we see at the rails and posts along the curb stones. Country people come in with their generally well kept horses, and hitch them up while they do their shopping or other errands, which sometimes take a half a day or more. Now these people have not the slightest intention to abuse their horses; on the contrary, many of them would fight for their steeds as soon as they would for their wives or children; but this is the way they do it: most of those who come on horseback ride a Spanish saddle with a high pomel, and with a short bridle rein. They dismount, and to keep the bridle rein from getting over the horse's head, they hitch it back over the pomel, by which it is drawn tight, and the horse's head slightly curbed. If the horse was in motion, this slight curb would cause very little uneasiness, but while all the muscles are at rest, this tension becomes exceedingly painful, especially as many of these country horses are not at any other time subjected to the curb. The horse bears it very well for a little while, but soon begins to step out and champ the bit, and if it had the gift once vouchsafed to Balaam's ass, would reprove his owner with all the modern improvements of the language. But as the poor brute has no such faculty, and as the rider is the ass in this case it must grin and bear it; unless, indeed, the Horse Editor of the Ohio Farmer happens along, and quietly putting a finger under the rein, filips it off the horn, and goes on as innocently as if nothing had happened, while the relieved animal holds out his grateful nose and says, "thank you old fellow!" in a kind of horse latin, that is perfectly intelligible to the editor aforesaid.

But this is only one phase in the abuse of the check rein. Farmers are not the only sinners in this respect; in fact, they are least guilty, and it is because their horses are so seldom subject to check, that they suffer most intensely when it is imposed. Our town and city folks have most to answer for. Here we see even the cart boys, with a ton of sand in the cart, and the poor horse—

checked up most unmercifully, because the ragged driver takes as much pride in having his team look well, as his more aristocratic predecessor; and at every jar of the cart, or misstep of the poor damaged brute that halls it, the latter gets the full benefit of the jolt upon his jaws, which are by this time providentially pretty well hardened.

The evil begins much farther back. The colt in the barn yard that has never known restraint until now he is some three years old, is roughly caught and a bit forced in his mouth, a crupper put over his tail, and a belt around his body, and then his nose drawn in half way to his breast, when he is left to suffer and sulk, sometimes for half a day. When this editor was a lad he was guilty of just such enormities, but these are among the original sins of which he has most heartily repented. In breaking a colt to bit, the rein should never be drawn so as to cause positive pain in the muscles of the neck; for, besides the inhumanity and uselessness of such a course, the horse's mouth is irretrievably damaged by it for all future use; a good mouth is indispensable for a good saddle horse.

When the horse goes into harness, again comes the abominable curb, to make him hold up his head. As before remarked, in a lithe horse, with all his muscles in action, a moderate curb is not very painful, and is often useful after long habit, in steadying his carriage; it is like every other bad habit in this respect. But to hitch up the team to a post, leaving the curbs tightly drawn, is an unmitigated abuse. Every day we see fine carriage teams standing in that way, left by the hour. The noble beast first puts out his fore feet, then gathers again, and turns his neck quite to his side, then to the other side, to relieve the aching muscles, and all because the thoughtless driver had neglected to take the check reins out of the hooks, or for fear his team would get their heads down. On Sundays our devotions are often very much disturbed by such sights. Fine carriage teams are trussed up for two hours at the church door, sometimes hot and in fly time; they can only twitch their skin and wag a stump of a tail; sometimes in winter, with the keen winds singing in their ears, and their fore feet in the slush of the gutter. In such cases, if it were not for disturbing better worshippers, we would like to throw a torpedo into the pew of the owner, who ought to be made to sit astride of a sharp rail without any cushion on it, all the time his team was hitched up in that way.—*Ohio Farmer.*

—The above is good horse sense, and we hope our guilty readers will ask pardon of their horses, and sin no more in that foolish way.—ED.

## Nutting's Fanning and Assorting Machine.

EDS. CO. GENT.—I notice in the *Country Gentleman* of April 23d, an editorial answer to an inquiry, which I fear may do unintentional harm by leading to false conclusions. You say you believe Nutting's Separator is not now manufactured or sold anywhere. In consequence of a notice in the *Register*, and some notice in the *Country Gentleman* two or three year ago, many farmers were led to think that an implement had at last been made by the use of which they would be enabled to have pure seed, and the largest and earliest ripened kernels of that seed, and thus secure a constant improvement in the quality and quantity of their crops; but if the thing is not now manufactured, they will naturally infer that it has proved a failure, as some of our foreign friends say in regard to our free institutions; but as the rebellion and present unsettled state of our country is the cause of the latter, so it is of the former. The machine has not proved a failure, but on the contrary, never was esteemed so highly, where it is known, as to-day, as is proved by the fact that the first two years it was rather difficult to get my neighbor farmers to bring their seed grain and run it through the machine for nothing, i. e. free. The third year they willingly paid me 75 cents per day, or three cents per bushel for small lots, for the use of it. The same man have paid me \$1.50 per day, or one quart per bushel the last and present year. One man who has sent some six miles by team, four times in the last three years for it, made over \$75 by its use in running through 300 bushels of winter wheat in eight hours.

While the condition of the country has seemed not to justify effort for the introduction of the thing, it has constantly been manufactured on a small scale in several places in New England if not elsewhere, and has also been constantly improving in construction. There has been a local demand for all made I think, so that it has never been advertised for sale except the one advertisement in the *Country Gentleman*.

There is a perceptible improvement in grain wherever it has been used the most, especially in the diminution of foul seeds. I believe I have not one sample even, of the great pest of spring wheat called cockle or pink, this season, and all weed seeds are diminishing, as not a kernel is ever sown with grain that is run through this machine.

If farmers will be sufficiently careful to ferment their manure so as to destroy foul seeds therein, feed their teams with meal when preparing their grain land, kill all the weeds in hoed crops and by the road side, and sow only pure seed, the curse

upon Adam's posterity will be materially diminished. There never was so great occasion for the effort as now when labor is so scarce. But let not farmers despair of ever getting the thing to do it with, as, the rebellion down, capital invested, and abundant supply apparent.

RUFUS NUTTING.

RANDOLPH, Vt. April 27, 1863.

Mr. Nutting's machine is a very valuable one, and he should make arrangements with some good manufacturer to supply the demand for it.—*Country Gentleman*.

—We have used one of Sandford Adam's grain sorters, made in Boston, and are much pleased with it. We do not have any of these implements for sale at the West.

Will not our friend Hovey, of 194 Lake street, look after this New England Yankee fixing.—ED.

## A Simple Method of Growing Celery.

BY A NEW JERSEY MARKET GARDENER.

The ground necessary for the growth of celery need not be damp, as is generally supposed. Any good, rich vegetable soil, if level, is all sufficient. Although the plant luxuriates in moisture, if properly applied, yet it is as quickly impatient of stagnant water at the roots as almost any other vegetable.

One of the best varieties for private culture is the Incomparable Dwarf, a solid, stocky, white variety, never attaining more than two feet in length, but of the most delicious flavor. This variety is particularly well adapted to this simple mode of cultivation; which consists in planting the plants on the surface, one foot apart each way, so as to form a square bed. The object in having the plot thus square or oblong is, that when the celery is so planted, the plants crowd each other when grown so that in the struggle for light, the hearts are drawn upwards—one of the most important objects to be obtained; which, when the celery is planted in single or double rows, cannot be attained, without the process of what we call handling and hoeing up. The time of planting is usually the month of July; but if good, strong plants can be had, fine celery may be grown by planting in August. Nothing further whatever is necessary in its cultivation but simply hoeing to encourage growth and keep down the weeds, as is done in a cabbage or onion bed. This, then, is the whole process from the time of planting in July until in November. Thus far, it is, of course, green—unblanched; the blanching process being done when stored in winter quarters.

The time of digging up, of course, varies somewhat in different localities. In this district we usually have all put away by the middle of November; and after some ten years' experience, we find no plan so simple or so safe as the French or drain system of blanching or preservation.

The process consists in digging a trench or drain ten or twelve inches wide, and of the depth of the whole length of the celery. The celery is then packed perpendicularly in the trench, moderately tight, until the whole is filled up. It will be understood that there is no soil thrown in about the roots—none being necessary. The roots, being at the bottom of the trench, quickly absorb sufficient moisture to encourage new roots, which, as soon as formed, the blanching process is begun, and the celery will be fit for use in four or six weeks from the time of being put in the trench. It is indispensable to cover the trench with leaves or stable litter to the depth of six or eight inches; but this must be done gradually—two or three inches at a time—as the season advances. If put on all at once, it stops the evaporation from the mass of celery packed in the trench, and the blanching being prematurely hastened, it would not keep so well as if covered gradually.

The great advantage we find in this way of preserving winter celery is, in the easy access we get to it in all weathers—nothing more being necessary than to remove the litter and take out what is wanted, and cover in carefully again.

I have been induced to offer these remarks on seeing your article on the subject in last month's number, which, although it is, no doubt, all claimed for it, is expensive and troublesome; and in localities where drain tiles are not to be had, impracticable; while by the plan above narrated, you can have as fine eating celery as can be produced by any other method, and that, too, at the cost of not more than one cent per head. In field culture its cost is less than half a cent per head, although the elaborate system of bunching for the New York market costs at least half a cent more.—*Gardener's Monthly*.

—A good story is told of a Federal officer's first appearance in polite society in Arkansas. The company were engaged in dancing, and the loveliest female present occupied a chair near the window, without a partner. Stepping up to the lady he exclaimed:

"Will you do me the honor to grace me with your company for the next set?"

"Yes, sir-ee?" she replied, "for I've sot, and sot, and sot, till I've bout tuk root!"

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, MAY, 1863.

The winter, so open and unfavorable to farm operations has thus far been followed by a cold, backward spring. On the mornings of the 8th and 9th the ground was frozen near two inches deep, and at this writing 13th inst., the mornings are of the overcoat order. This, for Central Illinois, is unusual, and beyond the memory of that highly extolled and popular individual, the oldest inhabitant.

Farmers are yet sowing spring wheat, and certainly with the prospect of having it frozen after germinating, so essential to this crop. The ground, so thoroughly packed and run together with the continued and heavy winter rains, is breaking up cloddy for the want of April showers. Verily the winter is lingering in the lap of spring—or rather the spring has no lap to linger in, and we may look out for one bound from winter to summer *a la* Minnisota. The severe freezing has made it dangerous to ship fruit trees, and the farmers are but just beginning to visit the nurseries. To sum up, we are full three weeks behind.

We would advise the free use of the roller in all this cloddy land at any cost, as it will be the saving of the crop in many cases. If it cannot be done at the time of planting or sowing, better put it on the corn at four inches and the grain at the same height than to neglect it.

BOOK FARMING NOT WANTED IN TAZEWELL COUNTY—WHERE IS THE SCHOOL MASTER?—

"Apl 2d 63

Baynton Tazewell Co Ill

sir I have notefied the Publishers of the Ill farmer sent here to Levi Dillon is not taken out of the office In consequence of the postage not being paid you will be so good as to pay the postage before you send them or I will halve to sell them for the postage My opinion is in as mutch as he wont Pay the postage you had better stop the paper but you can do as you like or pleas I think I can find aman that will buy them for the postage  
Yours

Jesse Dillon

P. M. of

Boynton ill

I under stand he dont want the paper and it looks so to me or he would pay



I have notified the publishers But still they come well I guess there is not many book farmers Just hereabouts for there is only two others comes to this office Farmers Well I spose they havnt got time to kinder be alooken after them kinder books looks to me any how well I tried to get up some names for a farmer but then I could not again one fellow said what he larnt everybody would no any how so it was no youse in tryin and i quit and I kinder recon maybe I could sell em for the the postage but I am not say sartain well they comes together quite often and talks it all over so no youse my papers full and must

stop”

—We are not surprised that book farming is not wanted in any neighborhood that is blessed with such an enterprising and capable postmaster.

We have heard of places where voters continue to cast their ballots for old Hickoy, not having heard of his demise, but we have had a higher opinion of the intelligence of the people of Tazewell county. It must be that these people are but a short time from the piny woods.

We trust the school master will reach their children, for the ease of the old ones is hopeless.

Our advice to the publishers is to stop the paper, for the chances of collecting of men who are opposed to books, is slim indeed, as they seldom have anything of which to make a debt.—Ed.

**JOURNAL OF THE STATE AGRICULTURAL SOCIETY FOR APRIL.**—This we have just received. It is out in good time and contains, besides the entire list of premiums for this year, two essays by L. J. Bradford, Esq., President Kentucky State Agricultural Society, on tobacco and hemp culture, together with a copy of the present law of New York for the collection of agricultural statistics, to which last particularly the Secretary invites the attention of those interested.

The plan presented seems to us entirely practicable, and we hope it will be adopted. The wealth of Illinois is emphatically untold, and will be until we get into operation some uniform method of gathering and publishing statistics.

We learn that copies of the Journal have been sent to the secretary of every county agricultural society in the State, from whom they will find their way into the hands of the Farmers—or they may be had on application to the Cor. Secretary, John P. Reynolds, Esq., Springfield, Ill. Send for a copy.

**HOG CHOLERA.**—We learn that James N. Brown Esq., of Sangamon county, the standing commit-

tee of the State Agricultural Society on cattle disease, has in progress a series of experiments with a view to test the efficiency of the “cure” for this disease which Mr. Kinney claimed before the board last winter to possess. Our friend, the Western Editor of the Rural New Yorker, is mistaken in presuming that the board had taken no steps in this matter. Mr. K. is somewhat erratic, and has not found time to conduct experiments where they desired him to, until recently, Capt. Brown’s statement will be looked for with interest, and when made will be entitled to confidence.

**TO MANUFACTURERS OF AGRICULTURAL IMPLEMENTS.**—We are glad to observe that our State Society are determined to go through with the trial of the different classes of agricultural machinery. Let the proprietors of the various implements respond as they should do and doubtless will, and this trial, of which we publish the programme in this number of the Farmer, will equal if not exceed in interest and value, that held at Dixon in 1862.

The Decatur folks are fully alive to the importance of making ample provision for taking care of the crowds who will attend both the trial and the Fair.

**PRUNING OF NEWLY SET TREES AND SHRUBS.**—When trees are set out they should have their heads trimmed out or cut back, according to the variety, but after the leaves have put out, not one of them should be plucked off on any pretext whatever. All of the leaves are required to aid the growth of the roots. The second year the tree can be fully pruned. The cutting back of the last year’s growth of the apple, pear, peach, quince and most forest trees, to within half a dozen buds, is advisable at the setting out—or if neglected somewhat late, at the same time leave all sprouts or suckers to have their way.

The cherry, plum and a few other trees, do better to simply trim out the branches.

**DITCHER AND CORN CUTTER WANTED.**—The Illinois Central Railroad Company, always taking a deep interest in the improvement of the country, and knowing that what benefits the country will benefit them, have offered a special premium as follows, the award to be made at the Decatur trial:

For a Ditcher that will cut a ditch 2 feet deep and 5 feet in width.....	\$250
For a Corn Cutter and Stacker.....	250
These premiums will be awarded only in case of successful trials.	

**WHITE WILLOW.**—\* \* “I know that there is great excitement in the public mind about the white willow for the purpose of making a live fence. Such expectations will end in grievous disappointment.

I am a member of the Ill. State Hor. Soc’y, and was present at its last meeting, where the white willow was, by vote, recommended for a live fence. From that vote I dissented, and, in connection with several others, sent in a protest against it as aiding a set of sharpers to defraud the public by selling them an article either true or false, that never can be made a useful hedge.

“I hope you will not understand me as intimating that the white willow may not be found valuable on the open prairie, &c.

The proceedings of the Horticultural Society, with the protest, will be published and circulated by the first of March, when you will learn, if not before, something further of the willow.”

—The above is sent us by a friend as an extract from a letter of Smiley Shepherd. We have a high regard for this enthusiastic friend of agricultural progress, but we hope his predictions of the failure of this plant for a fence will not prove true; in fact, we know from seeing with our own eyes that it will make a good and substantial fence.

The publishing committee made bad work with the whole willow question in the translation. The most prominent subject of the meeting has been condensed into two or three pages and hastily slurred over. We should like to have seen both sides of the argument, and the protest put on record.

**FENCING.**—Dr. Pennington, of Sterling, writes as follows:

“Our people are anxious to move in the fence question. They believe from the high price at which fencing now is, and must continue to rule, that the time is auspicious to act on this subject. In fact it will soon be beyond the reach of those of limited means. Are not the people in your portion, as elsewhere in the State, with us on this subject?”

Live fence we must have, but what we suppose the Doctor wants, is a law to compel every man to take care of his stock. This we have labored for, and hope to see a law to that effect; but so long as we have so much open prairie for pasturage, the prospect is not good for such an event. New York has moved in the matter, and Ohio will soon follow suit. We think the law in our State is plain on this subject, being the English common law; but wooden-headed judges have construed it

against us, and practically take private property for private use, without pay; for what is it better to compel me to fence out the stock of my landless neighbor.

The coming session will give us no encouragement, for it is mainly composed of wire pulling politicians.

**BOX ELDER—ASH LEAVED MAPLE.**—(Our Negunt do Linn.) This small tree, or rather shrub, is attracting some attention as a sugar tree, several persons affirming that its sap makes a quality of sugar equal to that of the sugar maple, and that the richness of the sap compares well with it. This may all be true, but we suspect that the quantity will prove so small that it may not prove profitable.

The tree grows 20 to 30 feet high, with irregular, spreading branches when growing in the woods, but in the open ground, rather symmetrical making rather a beautiful tree, well worthy of a place in every yard. It often grows a foot or more in diameter. The seeds are ripe in August, should be gathered and sown at once.

**SEASON AT THE NORTH.**—In the February No. we made a note of the climate of one of the peninsulas jutting into Lake Huron, in which it is stated that during the season there is one hundred and fifty days without frost.

Gen. Swift writes us that he intended to say one hundred and thirty-three without frost, and one hundred and fifty with but slight frost. Corn and apples grow there on the banks of the Ausable river. These apples are old Indian orchards. The Gen. says, “I attend free concerts up here by starlight, and hear what appear a thousand voices of wolves howling in concert. “Distance lends enchantment to the view.” No doubt of it.

**COTTON CULTURE.**—The Com. of Agriculture, Hon. Isaac Newton writes us under date of 17th April, that the cotton seed will be sent to the parties whose address we sent him some weeks since. It is from North Carolina. We learn that he is sending out some fifteen hundred bushels of this seed, mostly to the south part of this State. From numerous private letters we learn that a large breadth of cotton will be planted. One of our merchants at this place sold his stock of goods recently, purchased a farm in Egypt, and is putting in two hundred acres. He was formerly from the South, and understands the business. We shall plant several bushels if it reaches us by the first day of May.

This season we shall try the topping process.

**SCIENTIFIC AMERICAN.**—The paper has become a necessity to a large class of readers, and none more so than the agricultural community. In it we have a history of the inventive genius of the age, which go to cheapen our goods, take the wrinkles from the brow of care, or add to our pleasures. Every farmer who has a family of boys should not fail to take it; every farmer who would be posted as to progress made in agricultural implements and machines, should take it. In fact, it is to the farmer invaluable, and should not be dispensed with.

Address Munn & Co., New York city. \$3.00 a year.

**THE HORTICULTURIST.**—The April No. of this indispensable journal is at hand. It contains a colored platt of the Delaware grape. The subject of grape culture is continued; and at this time when this fruit is attracting so much attention, is particularly valuable.

The work is clubbed with the Farmer at \$2,50; or send \$2 to Mead & Woodward, N. Y.

**FLAX CULTURE** has become something of mania among our farmers. It is now too late to give advice in regard to it, further than weed it if very foul for this will be found to pay. Weed out the cockle and other ruinous weeds.

A few days since we saw a lot of seed that was more than half cockle. The owner attempted to clean it, but gave up the job in disgust and sent it to market.


MT. PULASKI, March 10, 1863.

DEAR SIR:—In your next number of the Illinois Farmer, give an article on the subject of raising sheep; their feed, and especially whether or not parsnips are good for them; and also, what are the principal preventatives and remedies for their diseases, and oblige yours truly,

SUBSCRIBER.

—We shall give stock growing more attention soon—Ed.

**SHOW A COPY OF THE FARMER.**—Those of our friends who wish to do a good deed will show the Farmer to their neighbors, and thus add to the general stock of knowledge, by increasing its circulation. Several subscriptions have of late been received from this cause. Roll on the ball, and roll up a big list for the paper, and then each individual sit down and give us his experience in farming.

 He who kindly loves, loves warmly.

**TRANSACTIONS OF THE ILLINOIS STATE HORTICULTURAL SOCIETY.**—This work, a pamphlet of one hundred and forty pages, is at hand. It contains a vast amount of valuable horticultural lore, not otherwise accessible. Price forty-five cents. Address O. B. Galusha, Lisbon, Kendall Co., Ill.


**THE HORSE OWNER'S HAND BOOK.**—By Dr. G. H. Dodd. This is a practical work, and deserves a place in the library of every owner of a horse, and especially the farmer. We shall draw from it occasionally. In mean time our readers should order it of Emery & Co., Chicago, Ill.

**PEACHES IN EGYPT.**—J. A. Carpenter writes us from Cobden, that the prospect for peaches on old trees on high land is good. The last of July rich men's peaches will be plenty here at two dollars a bushel. The third week in August poor men's peaches at twenty-five cents a bushel at the express office.

—A lady, upon being told a friend wished to see her, desired her little daughter, about eight or nine years of age, to say that she was not in; upon this, the friend being anxious to have an interview, asked the child when her mother would be likely to return. The little thing very innocently said, calling up stairs, "Mamma, the lady wishes to know when you will be in!"

—A soldier who can get off a laugh over the loss of a limb, must be of pretty good stuff. Passing along one of our thoroughfares a few days since, we met a poor soldier who had lost one of his limbs in battle, slowly walking on his crutches. A friend meeting him cried, "I say, Jim, how is it that you went away with two legs and came back with three?" Oh, bedad, I made fifty per cent on it!" was the reply.

—The first, the most important trust God has given to any one is himself. To secure this trust, He has made us so that, in no possible way can we benefit the world so much as by making the most of ourselves.

 Col. Coburn, of the 33d Indiana, who was captured some months since with his command at Franklin, Tennessee, and has been released from the Libby prison at Richmond since the Stoneman raid, has been appointed by Gen. Hascall Commandant at Camp Carrington, Indianapolis.

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Advertisements.

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These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address  
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May 1'63. 1y

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**T**WO just imported from the Island of Malta, selected with great care for breeding purposes. They are three years old, 14 and 15½ hands high.  
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A large stock of **CONCORD GRAPES,** one of the best varieties for the West.  
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A few thousand of bearing age, of large size at \$75 per 1,000.  
These will produce a good crop the second year.  
**HARTFORD PROLIFIC,** \$10 per 1,00, or ten for a dollar.  
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The above will be well packed, to go any distance.  
**TERMS—Cash,** or approved bank paper of short date.  
**JAMES SMITH.**  
**DES MOINES IOWA, Jan. 1, 1863.**

## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

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**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.



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As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State.

Apr 2m

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Apr '63 ly

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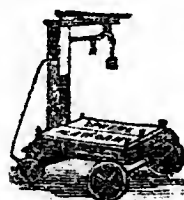
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August, 1862.tf



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The Illinois Farmer,  
A MONTHLY JOURNAL OF  
AGRICULTURE AND HORTICULTURE.  
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BAILHACHE & BAKER,  
AND IS EDITED BY  
M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to getter up of the club twenty copies \$10.

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APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
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THE

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STOCK RAISING,  
HORTICULTURE and POMOLOGY,  
And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

LARGEST PRICES

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The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

CONTENTS.

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Commencing January 1st, 1863, and the present time affords the best time to form clubs for the year.

One copy one year.....	\$2 00
Two copies one year.....	3 00

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EMERY & CO., Chicago, Ill.

# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., JUNE, 1863.

NO. 6.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### June.

Summer has now come, and the season of planting is nearly over; the trees are in their fullest livery, and making rapid growth; everything is struggling to do its best in the way of growing; but the weeds are the most vigorous, and this month, generally termed the month of roses, might as well be termed the battle of the weeds for it is now, if ever, all conqueror. Eternal vigilance and constant labor is the price of good crops.

We now begin our summer pruning of fruit and ornamental trees. Wounds will now heal over readily. It is a matter of some doubt if the total neglect of pruning is not better than the

usual mode of severe and indiscriminate slashing off of limbs from our bearing orchards. For one we prefer the let alone system, at the same a moderate and judicious thinning out the heads of our trees is very desirable. Remember that summer pruning induces fruitfulness, not growth; the autumn is the time to prune for a large growth of wood.

Vines will need careful watching for the striped bug—dust them when the dew is on with ground plaster, or soot; ashes will sometimes answer a good purpose.

Cabbage and sweet potatoe plants should be set out. The former should have a deep, rich soil, well manured, and the latter will do best in large hills.

Constant stirring of the soil and killing of the weeds is almost the chief work of this month.

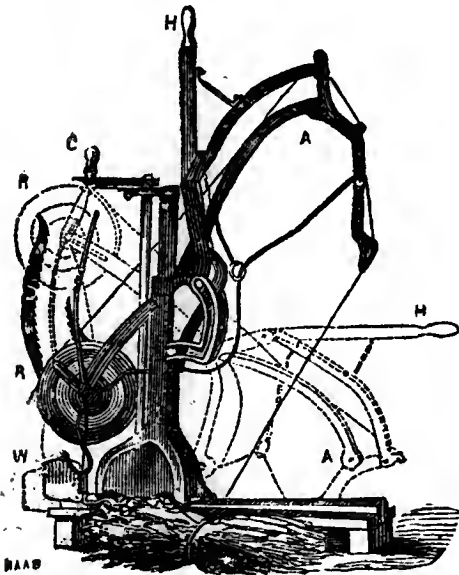
We now have currents, gooseberries, strawberries, and May cherries, or at least those who have been sufficiently provident to plant them. The May cherry ripens the 10th of this month and will last over two weeks. Although not so delicate as the heart cherries, yet as they cannot be grown here we may put the May cherry—not Early May of the East—at the head of the list. These early fruits when abundant will do much to ward off the bad effects of the summer heats, and are certainly great

luxuries. The potatoes will need care this month ; work them with the double shovel plow or cultivator or the flat culture system until the blossom buds are fully formed, when they should be slightly hilled up with the single shovel plow.

If you have much grain to cut, secure one of Burson's grain binders to help you through the harvest.

The new set willow fences should be looked after and kept free from weeds. You need have no misgivings if you do your duty to the cuttings, for you will in time have a good fence and valuable wind-break for your trouble.

Burson's Grain Binder.



Above we give a cut of this new labor-saving implement, with explanations for its use. At the reaper trial of the State Agricultural Society, at Dixon, this binder attracted more attention than any other implement. This, from its novelty, was nothing strange ; but, from the time that it first came on the ground, it almost wholly absorbed the interest of the farmers present, and it was necessary to discontinue its working to give attention to the further progress of the reaper trial. That one

man could bind a six foot swath as fast as cut with four horses could not of itself fail to draw the admiration of the grain growers, at a time when he was paying two to two and a half dollars a day to six men to follow his reaper, it was an appeal so direct to his pocket that it could not be withstood. In this was no novelty but a broad fact sustained by an argument of some eight to ten dollars a day, besides the trouble and extra expense of getting these extra hands. No wonder then that it was hailed with delight, and that those deeply interested should continue to watch it with close scrutiny, to see if perchance there was not some deception in it, if after all it was not one of those things made for show, and which would work for a short time but must not be driven too hard or overworked. But no such discovery could be made, and its steel muscles and iron frame stood the test, and triumphantly passed the ordeal, and was voted a place among the valuable farm improvements.

We think this binder is to the grain grower what the sewing machine is to the tailor—facilitating the work and doing it in a much better manner than by hand. The bundles are firmly bound, without regard to size, and less grain is wasted in the process. The wire band is easily cut for the thrasher, and we cannot learn that the wire is any damage to the straw.

An ordinary day's work of a reaper is eight to ten acres, (great day's work double this.) We will set it at ten acres and see how it will figure up.

Cutting and raking—two teams and two hands	\$5 00
Use of reaper 25 cts. per acre.....	2 50
Seven hands to bind and set up in shock at	
\$1,50 each.....	10 50
	<hr/>
	\$18 50

Making the total cost \$1,80 per acre, that is one dollar and five cents for binding and shocking, with labor at one dollar and fifty cents a day. It requires one pound of wire to the acre for heavy grain, and this at the present high price of wire is twenty-five cents. The account would stand thus:

10 lbs. wire.....	\$2 50
1 binder .....	1 50
1 shocker .....	1 50
	<hr/>
	\$5 50
The old way.....	10 50
	<hr/>
Favor of the binder per day.....	\$5 00

If we set twelve as the usual number of days for the grain harvest, the binder would save \$60,00, a sum that would pay for it, and all incidental expenses connected, such as attaching to the reaper, freight and storage, and at the end of the season, it is paid for by saving alone. That is the farmer who can cut one hundred and twenty acres, with wages at a dollar and a half a day, can save the cost of the binder. But we apprehend this is not all, for in that calculation it is supposed that labor can be had by the asking, but this we all know at this time is not so, and the question is narrowed down to the simple fact of harvesting or not harvesting, using the binder or losing a large share of the grain.

ATTACHING TO REAPER.

This should not be overlooked. In the I. H. Manny machine, made by Emerson & Co., Rockford, the raker or rather forker, shoves the gavel against a shield board, thus composing it before it is slid from the platform. Had this forker stand, platform and shield board been made expressly for this binder, it could not have better answered the purpose, for when the gavel reaches the shield board, it is just within the jaws of the binder, which closes in on it

draws around the wire, when a slight motion of the foot slides it off, and the bundle is ready for the shocker. In attaching to other reapers, such as the McCormick, the Manny raker stand and shield board must be added, the platform extended and an extra castor wheel added. It will thus be seen that those who have the I. H. Manny machine can attach the binder at once, but those having other machines should order the necessary additions at the same time so that no delay need occur. We do not know how the binder would work on the jointed machines, but suppose not so well.

SELF-RAKERS.

We cannot but look upon the binder as an implement that will in a short time entirely supercede the whole family of self-rakers, however valuable they may be. These self-rakers only save the labor of one man, while the binder will save that of three at least, over and above paying for the wire; a difference that will in a short time be apparent to all interested.

For particulars in regard to the binder see advertisement.

Planting and Culture of Corn.

Great progress has been made in the management of the corn crop, by which more than half the labor has been dispensed with. Twenty years ago, twenty to twenty-five acres were considered as much as one hand could tend. Now we find plenty of men who put in fifty to sixty acres, and manage them with more ease than by the old modes. Most of this improvement is due to inventors of agricultural implements, suggested by farmers, who see the value of a change from old ideas.

Many of our readers will call to min



the "bull plow," the boy and horse in the cornfield. We have rode a horse day after day and week after week to plow out the corn, with father or an elder brother holding the old bull plow. It was tiresome work, but not more so than to follow with the hoe to make the hills.

But thank fortune those days are past and the boy instead of riding to plow corn, can now attend school or make himself useful in some more easy and pleasant employment.

We have said that great progress has been made, but we are going to say and to show that another stride must be made in this direction, to ensure all that is attainable; in fact we are going to write an essay on

#### CORN CULTURE MADE EASY.

In the first place, the farmer who has but one team will use the common cast steel clipper plow, if two teams the wheel gang plow, having two twelve-inch plows. With these three horses do good work, plowing four to five acres a day. If the weather is dry, planting should follow, so that at the close of each day the day's plowing is planted and rolled.

#### CORN PLANTER AND ROLLER.

It has been a pet notion of ours that the planter and roller should be combined, so as to plant and roll at one and the same operation, and for the past two years have written more or less on the subject. Several parties have appreciated this idea and have essayed its solution, but thus far without fully realizing our idea of what is needed. A few days since we received a line from Mr. Craig, residing about six miles east of our sanctum, who stated that he had the thing in daily operation, working most satisfactorily. Of course we lost

no time in calling on him. He had a two-section wood roller, to the front of which his planter was attached. This planter is one of the best, and the working of it as geared to the roller, the most simple and perfect possible. So far we were delighted with it. Yet two important defects presented themselves at once, to make the machine combined what it should be. To the planter was attached the usual runner or marker, by which a hollow furrow was made for the corn, and corresponding to this a narrow band of wood, say two by four inches, was placed around the roller to follow the planter, for the purpose of covering the corn. When the soil is a little moist it adheres to this band and the whole thing becomes useless. To obviate this we propose to use an iron roller, and to place a small casteel wheel in front, so as to make a smooth track for the corn, and this planter to be followed with scrapers to cover the corn a sufficient depth, and which is at once pressed with the roller. This will leave the seed well drained, and in case of cold rain save it from rotting. A wood roller is but a poor implement, as the soil adheres to it more or less, thus giving to its surface so soft a coating that it fails to crush the clods, while on the other hand, the hard, unyielding surface of the iron roller pulverizes the clods and grinds them to dust. Let us see how much we would save in actual labor by using the planter and roller combined.

An iron roller and planter will cost about sixty dollars. After plowing the land, the account will stand as follow:

Planting and rotting sixty acres, one man and	
one span of horses, four days at \$2,50 pr. d.	
OLD MODE.	
5 days' harrowing at \$2,50 per day.....	12 50
3 " marking off.....	7 50
4 " planting.....	10 00
4 " one man to assist at \$1 per day.....	4 00

**\$34 00**

In favor of new mode \$24, nearly 40 cents per acre.

Now any sane man who has used a two-horse cultivator will say that to plant in check rows is entirely useless in the after culture, if not a decided damage, from the fact that we cannot plant as fast as the ground is plowed. Under ordinary circumstances we are satisfied that a fourth more corn can be grown on sixty acres put in as fast as plowed and rolled, over the old mode of plowing the whole of it before planting so as to check-row it. This added to the \$24 saved in labor, is no small sum, or rather it is a large per centage added to the old mode in the profit of corn culture. The invention of the two-horse cultivator has made a necessity, or permitted a corresponding improvement in planting; and we predict that in one or two years, not a planter of the present plan save as Brown's can be sold, but that all corn planters must and will be attached to field rollers. This year the land is very cloddy in this part of the State, and the subject of rolling is attracting no small share of attention, so much so that we know of several paying thirty dollars for drum rollers where they could get good cast iron ones for fifty. Many farmers, in fact most of them, profess to suppose that a roller of a ton weight, whether of wood or iron will do the same work, but such is not the case—the one packs the soil while the other grinds it to dust.

Before another planting season we hope to see a perfect implement of this kind with which to do our planting.

With the land rolled and the clods crushed, the corn comes up much sooner and more even, and will need at least once less working. There are no clods to roll on the young blades from the action of the cultivator, and the sur-

face being smooth is susceptible of being cultivated some days sooner than when the surface is left rough.

The man who furnishes a good roller and planter combined will find a ready sale, for it will revolutionize the system of planting.

A glance at the result is sufficient to convince any person of the advantage of such an improvement, and such a one the farmers will have, for at least half a dozen minds are busy in its solution. The rollers we have used for the last three or four years is the best adapted to this work of any that we have seen. The planter and gearing to drive it made by Mr. Craig, and with which he is putting his large crop of corn is all that is desired. A little more and the plan is complete. Then comes the question, who will do the manufacturing? Will some of our present manufacturers of planters see to it, or will they blindly adhere to their own pet, while the world jogs on, and corn planting and its culture is made easy by some plow jogger?

#### The Wine Plant.

That the fools are not all dead, is a fact patent to a certain class of operators, who have time and again demonstrated that they "still live." Were they all dead these worthies would have to betake themselves to some honest calling, by which to eke out their contemptible lives. We had supposed these fellows had all turned sutlers, or army contractors, but it appears that there are a few more of the same sort left, just to show that the tribe liveth.

It is well known that New York boasts of its free schools, its industry, intelligence, refinement and high social position, and that the county of Otsego,

the home of the great novelist Cooper, the seat of learning and the place where the great publishing house of the Phinneys dispensed to the Western World the standard literature of the day, is one of the most populous and highly favored of the great groups of counties that go to make up the Empire State. Yet it is here that the game of humbug has been played with a strong hand and the most triumphant success.

#### THE WINE PLANT

has seduced them—they have forsworn the use of spurious wines from the druggists, have ignored Catawba from the hillside of Ohio, and the more humble currant wines of their own gardens, and henceforth the pure wine of *the wine plant* is to be their only solace. Fortunes are to be made out of it; it is to the farmer of Otsego county what the lamp was to Alladin—to bring them gold in untold thousands. How fortunate that this *wine plant* from the holy land, so celebrated for its vineyards and its winepresses in olden times should be first offered to the intimates and neighbors of the immortal Cooper, but such would seem to be the fact.

A letter before us states that nearly every farmer in the county is the happy owner of a dozen or more of this invaluable plant, and that one of the writer's near neighbors has thirteen hundred. With him hogs, the great staple of the county, have no longer any value, as compared with this new acquisition, that will place him in the van of princely farmers. Our friend who is a reader of the ILLINOIS FARMER, on being applied to for the purchase of the wine plant, was so stupid as not to see it. He had been reading in the FARMER, on page 235 of the last year, in regard to wine making, thinking he smelt a

large mice was not disposed to purchase. We think him decidedly green, in having lost an opportunity to enlarge his stock of *rhubarb*.

## Agriculture.

### Early Cultivation of Hoed Crops.

It is a good thing, a necessary thing that the seed bed for all kinds of crops be well prepared. It is also an important matter that the seed be of the right variety—pure, well ripened, and properly kept. But with many crops that the farmer raises this is not all that is required at his hands. Corn, sorghum, broomcorn, potatoes—all root crops must have the assistance of the plow, cultivator or hoe, or they fail to produce.

And this work must commence with the early growth of the plants. In their younger days all animals and all plants are weak, feeble, and require nourishing, care and management, or they perish. Man is endowed with feelings that prompt, and reason that guides the management of the young, animals with instinct that dictates the same kind offices. In the vegetable kingdom nature guards against the destruction of species by the profuse production of seeds that ripen and fall upon the surface of the surrounding ground, many to decay, the few to germinate and reproduce. But when man seeks to turn the products of the earth to his own pleasure and profit, he must take more care, and fulfill every requirement to make every seed germinate, and every rod of ground produce and riden its product, or he loses a share of his time and labor.

As soon as the young plants appear above the ground, the work must commence. The surface soil must be stirred so that the aeration may be more complete, and that the warmth of the sun may vivify. This stirring of the surface soil needs not only to be done early, but it must be frequent, for the first few weeks. Experiment has fully established the fact, that the yields of lands thus tilled are far greater than when, though the first tilling may have been done early, long intervals intervene between the subsequent tillings. Our prairie soils, too, are so infested with noxious weeds that this early care is absolutely necessary, or the plants are choked and the properties of the soil subverted to the perfecting of a new crop of weed seeds.

Here in the West, where our corn fields are measured by the hundred acres, the hoe and spade have of necessity been discarded, but the inventive genius of the people has given us horse implements, that enable the farmer to cultivate these vast tracts, with comparative by but little man labor, and equally well—perhaps better than with the old fashioned tools. The two-wheel cultivator, the horse-hoe, the expanding cultivator, the shovel plow, are all admirable contrivances for destroying weeds, and properly stirring the soil. But with these, it requires constant work in the early stages of plants. Corn, we are aware, may be grown here, in many localities, without being ma-

nipulated at all after planting. Last year we saw several fields that yielded fair crops with the no culture system, but the owners were not satisfied with the result. It was necessity that compelled to the treatment. He invariably raises the most, who cultivates the best, and we have yet to see the farmer that thought he had expended too much culture upon his corn crop.

Most of our farmers have raised sorghum, sufficient to understand the feeble nature of the young blades—how they have taken them for grasses when they made their first appearance above the ground. No one doubts that, if at any time, this crop needs care it is during the first six weeks after the seed germinates. This, like corn, must have all the culture that circumstances will permit till it becomes too large to work without injury to the stalks. Potatoes are known to be better if the soil about them be frequently stirred till the blossoms appear. Carrots, mangolds, and all root crops must be treated in their earlier days, or their planting is useless.—*Prairie Farmer.*

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From the Valley Farmer.

### Hay Making.

There is something beautiful in the operation of making hay when the weather suits. This is so Timothy, with all kinds of grass, especially so with clover. Cut it when in blossom, when stem and head are tender, and juicy and fragrant. The scythe—if you are so unmannerly as to cling to the old poetic usage—will “walk” through with the greatest ease, showing what a tender thing you have. It is precious and requires careful handling. Let the sun wilt it; though it would be better if the sun did not see it at all. His rays are too fierce, and will scorch it and hurt it. Better if in the old fashioned winrow, than spread with the machine. If mowed with the machine, and there is time, put it in winrows, broad and somewhat thin, so that the air can get in. This will measurably relieve it from the sun. Then, if there is warm, dry air stirring, a few hours will sufficiently wilt the grass to fit it for the cock. It should always be cut when the dew is off. Then throw it in small cocks, say of half a hundred weight to the cock. Consult your barometer, and if you are sure of your weather, leave your cocks untouched for about three days or nearly that. If rain threatens, clap on your hay caps, or, you are safe in doing it in the start. They will interfere little with the curing process, and will shed rain. Then, if your weather is warm, with a little air in motion, let a hand precede the wagon, and turn over the cocks, loosening up the hay a little. This, with the stir the hay will get in loading and unloading, will be sufficient. And now you have hay that is hay—green, with a slight touch of amber. You have every head entire not falling into chaff. Every leaflet is there, tenacious of its stalk; the entire stem as the scythe left it, is there—pliable, not brittle and dried to a crisp, with the heads and leaves missing, or lodged on the barn floor, in the mow-seat, in your neck and bosom, and scattered on the field. But here you have heads with the hue of the blossom still there—a flower “pressed”—that is making hay. In this—“pressing your flower”—is the whole secret. Wilt and cure, but not dry. Cure is the only word. The

wet weather in many parts of the country has brought into requisition hay-caps. We are glad to see it. On the whole, they are a benefit. If the weather should continue wet beyond the time allotted for its cure, in with it the first moment it is dried off on the outside. Your hay is cured; but there is still some moisture left; and you have no means to give this to the air, so sprinkle a little salt on each load, amount according to moisture. Your hay, when fed, comes out about the same; is as readily taken by the stock. Even should it change a little in the mow, how much better so than a bulk of brittle sticks, with all the sugar and the starch out, and all substance. Such “hay” will starve cattle, and is a pity to look at. There is no poetry in such “hay,” neither in the making of it, nor the feeding. There is less labor in making it the right way; and the wettest season will not spoil it, as in the other case. Such hay—or grass cured—will fatten your stock. It will have the summer effect upon your cattle, upon the bowels. They will eat it with avidity, and brighten up over it. Roots may be dispensed with in the presence of such hay. ’Tis thus one may have summer with his cattle. Such a man is benevolent, as well as an economical and wise man. The sight of such hay shows the prosperity of a man. There is but little in the country as yet, but it is fast increasing. It will soon be the only hay; and then a better era has dawned for the cattle, horses included—and man also.

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### When to Cut Wheat.

Here is something worth the consideration of all wheat raisers! A club of ten farmers in Pennsylvania (Chester county) made experiments in cutting wheat. Their conclusion was that the best time to cut wheat was “when the grain can be pressed between the thumb and finger, and leave nothing but the husk and a thick pulp, without any fluid around its edges.” If cut earlier, there will be loss; if later, there is less weight to the bushel. A few days before or after makes little or no difference.

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### Hoed Crops and Weeds.

For any hoed crops, a clean soil is a greater advantage than most people are aware.

If old strawberry beds run out, do not replant the same ground, but select a spot moderately rich and as free from weeds as possible.

So with all root crops. Manure which is generally required in hoed crops, makes weeds, as every farmer and gardner must know.

The best soil for roots, strawberries, corn, garden, or the like, is a good natural soil, or ground made rich years before. A rich soil thoroughly cultivated is often just the thing.

Weeds are a pest, as every one knows. A clean, mellow soil, is a delight to work in, especially if rich and productive.

Every cut of the hoe is so much labor (which is money) expended. Use cheaper means to kill weeds.

### Mulching With Manure.

The difficulty with our summers is, that there is too much drouth. A rich, mellow soil is, in part, a preventative of this. A coat of straw, sawdust, tan-bark, or almost any covering, will prevent the sun from striking the soil, and the ground will consequently be kept more moist. But these applications require labor. To remedy this, when manure is applied to enrich your land, let it be done as much as possible as a top dressing, we mean on grain as well as meadows or pastures. Draw rank manure—any manure—early in the fall upon your meadows or grass lands, spread at once; but on cultivated land, manure can only be applied to the surface after the harrow has left it, and then it should be applied. It may be harrowed in or not. It will not only add fertility to the grain, but at the same time afford a covering against the sun and wind of great importance. This is getting to be understood now. It is the protection from the sun that makes it so advantageous. Raw, or unfermented manure may be used on grain in this way, with perhaps little, though some, injury at first. But not so much as on meadows. Rank manure is bad applied on meadows in the spring. It is beneficial then only as a mulch. Let farmers try little spots of grain in this way for an experiment, and they will see what a discovery they have made. It will not do to say the soil is rich enough:—the soil is deteriorating; and increased richness adds increased abundance of most products. When the soil is still rich, then is the time to prepare against its exhaustion. When once exhausted it will be too late. We will then have the soil of Italy, Ireland, Egypt and Greece, and all the accient domain. It is considered an impossibility to reclaim such soils. This should be avoided; the soil kept good—and now is the time to do this. Land mulched with manure has the advantage both of moisture and fertility; two things gained in one. Mulching is assuming an important rank in agriculture. It is the coat that protects. Try a little manure on your grain, harrowed in or otherwise.

### Treating and Flavoring Tobacco.

A very common opinion prevailed for a long period that tobacco was a tropical plant, and could not be cultivated in latitudes of moderate temperature. It is a fact, however, that it will grow and may be cultivated, not only in all latitudes of where corn or maize comes to maturity, but in regions much farther north. Large crops of tobacco are now raised in the valley of the Connecticut, and the leaf of the plant is smooth and held to be well suited for the wrappers of cigars. It is also cultivated in some portions of Albany and Ontario counties in New York; thus proving that the plant

may thrive in our most northern States. And not only may it be cultivated in such latitudes, but it is well known that soon after it was introduced from America into England it was cultivated for a period with success in several sections of that country, and also in Ireland. In 1570 it was grown in Yorkshire to a considerable extent, but its cultivation was prohibited by an act of Government, for the purpose of deriving a large revenue from that which was imported. This occurred during the period of the Commonwealth, in 1652, and since then not a leaf of tobacco, except as a curiosity, has been grown in England.

We have been told by those who are esteemed connoisseurs of tobacco, that although this plant grows luxuriantly, when properly treated, in the States, still it is not equal to the qualities which are cultivated in warmer latitudes. This perhaps owing to the mode by which it is treated, after it has matured. In Virginia the sun-dried tobacco is held to be the best for chewing, but most of it is finally cured by artificial heat. Tobacco in leaf, is very sensitive to moisture in the atmosphere, because it contains so much potash, common salt and lime. An analysis of this plant gave: potash, 8.7 per cent.; lime, 32.2; common salt, 3.8; magnesia, 2.8. In Richmond, which has been the headquarters of the tobacco business, there are very extensive manufactories where the leaf is cured, and afterwards made into plugs for chewing. Great care and attention are necessary to the proper curing of it, and if the weather is moist during the operations it is very liable to mildew. In clear dry weather it is spread on the tops of sheds, and hung in every situation where it can be exposed to the dry air. The sky is watched with anxiety during such exposure, so that it may not receive a drop of rain. Very frequently it receives its final drying in warm apartments, and in many cases these are heated with open fires—dry corn-cobs being about the best fuel that can be used. Pine and other woods impart their resinous taste to the tobacco, if the smoke is permitted to permeate through the leaves.

After tobacco is perfectly cured, it is prepared for pressing. It is now a common practice to flavor it with some mixture of a sweet and aromatic character. A common preparation is that of the tonqua bean, which has a pleasant odor. Vanilla is also used, and different manufacturers have their special mixtures. The leaves are spread out and slightly sprinkled with the aromatic liquid until a sufficient quantity of the moisture is absorbed to render them pliable. They are then rolled into cylindrical packages, and these are squeezed into flat plugs in powerful presses. A number of such plugs are subsequently placed together and subjected to a second pressing operation, by which the plugs are converted into square blocks, and thus fitted for transport and market. It was formerly the custom to place the pressed tobacco in a room called the sweat-house, where it remained for a considerable period exposed to a warm atmosphere. This made the tobacco sweat; globules of juice appeared upon its surface and dropped on the floor, and its taste was much improved thereby.

It is also common with some tobacco manufacturers to sweeten the dark and rank qualities for chewing by dipping the leaves in bunches into sugar sirup, before pressing them. We have only



referred to the treatment of chewing tobacco; the superior qualities being used for this purpose. The terms "honey-dew," "sweet leaf," &c., applied to different lots of tobacco, are of the "bunkum" order. The best qualities of tobacco are said to be cultivated on new soil, on the southern sides of gently sloping hills.—*Scientific American*.

DEPARTMENT OF AGRICULTURE, }  
WASHINGTON, May 13, 1863. }

*M. L. Dunlap, Editor Illinois Farmer :*

Enclosed I send you my first mothly circular for obtaining information of the condition and appearance of various crops throughout the country.

I shall be glad to receive from you any suggestions for its improvement.

You will confer a favor on the Department and the farmers of the country for whose benefit it was created, by calling attention particularly to these points:

That the plan of reporting the average of land sown or planted and the appearance of the crops, by figures, is the most simple, and likely to be correct; 10 representing an average of amount, and also an average fair appearance of the crops, while it will be quite easy by figures above and below 10 to represent how much above and below an average they range.

Also, that this circular will be followed by others monthly, till the crops are all in—each one being altered to suit the month for which it is issued.

For instance, next month will include grass, flax, and wool-clip. After that inquiries will be made as to amounts harvested.

Although this may be imperfect, yet it is the first step toward collecting the Agricultural Statistics of this country, and I hope the results may be such as to attract the attention of members of Congress and cause them to take some decided action for perfecting the system.

Very truly and respectfully,

Your obedient servant,

ISAAC NEWTON,  
Commissioner.

It would be very easy for the Boards of Supervisors of the several counties to make up these reports. Each supervisor could make monthly reports to the county clerk, who could compile them and thus get at a very near result. For an individual to do so, it would require much of his time, and then the amount would be the result of considerable guessing.

We publish the entire letter to show what the new Department is doing or proposes to do.

There has been no small amount of opposition to Commissioner Newton; how much of it is outside of those who either want his place or a place under him, we have no means of knowing; but thus far we have seen nothing to find fault with. We are aware that he has been hemmed in for the want of funds and that cordial support that should have been extended to this important department, but we hope to see both of these causes removed.

We believed that the office was due our own State, where the plan originated, and which has the men to fill it, but President Lincoln thought otherwise and we submit, and shall give the new institution our cordial support, and assist to correct its faults should any appear.

It is charged that the seeds sent out are those in common use, especially among the vegetable. To some extent this is true, as the stock on hand at the patent office had to be disposed of. Even suppose this to be true, it puts in the hands of many persons improved varieties of seeds that would not be so rapidly sent out from seed stores; and with the present arrangement these cannot than otherwise be of value. We have a large assortment now on trial, many of them said to be new and improved varieties. In this way pure vegetable seeds of old sorts might be advantageously sent out.

In the item of cotton seed, of which fifteen hundred bushels have been sent west from this office, no one will pretend to say that it is new or that private enterprise could not have furnished double that amount, but we happen to know that the seed was needed and that private enterprise had forgotten to attend to it, and that the supply has been timely and valuable. We trust that the Department will look after new things, but that it will not fail to press the attention of the planting public with some of the more old and valuable ones, that have not, as yet, found their way to all our farms. Humbugs spread over the land like wild fire, while the introduction of valuable tools and plants is the work of time. We intend to devote some space to this subject, and show what has been done and what remains to do. The efforts that have failed and the good that has been won. We are for building up, and have no time to pull down, unless it is something that bars the way to progress, when we intend to be among the first to mount the barricades.

### Coal Oil for Fruit Trees.

A gentleman formerly connected with coal oil business in this city, tells us that several years ago, in taking a lot of sample bottles of oil on a journey for exhibition, accidentally had a bottle broken, saturating the sawdust in which the bottles were packed. When he arrived at his stopping place, he put the sawdust at the foot of a plum tree, it being about the time of the blossoming of the plum trees. The result was watched and it turned out that the curculio which ravaged the other plum trees in the orchard, gave this one a wide berth, and the plums were saved to ripen.

This circumstance led to further experiments with like favorable results. The sawdust thus saturated—which can be with the cheapest kind of coal oil—retains the odor for a long time, which is offensive to the fastidious tastes of the little Turk. The boarer also will not put his gimlet into the trunk of a tree which is encircled with this stuff.—*Ohio Farmer*.

## Stock.

### Right Feed for Working Teams.

When horses are turned out to grass in the spring of the year, the succulent nature of the food causes them to purge, often to a great extent; this is considered by many persons a most desirable event—a great misconception. The herbage is overcharged with sap and moisture, of a crude, acrimonious nature, to such an extent that all cannot be taken up by the organs destined for the secretion of urine, or by the absorbent vessels of the body; the superfluous fluid therefore passes off through the intestines with the indigestible particles of food, and thus the watery fæces are thrown off. Flatulent colic or gripes is a frequent attendant. The system is deranged; but the mischief does not terminate here. If the purging continues, a constitutional relaxation of the bowels is established, very debilitating to the animal, and often difficult to control. I am so decidedly opposed to an unrestricted allowance of luxuriant grass to horses at any age, that nothing could induce me to give it to them. I may not be able to enlist all my readers as converts to the practice; I trust I may a great many of them.

After the second year, hay should form a considerable portion of the daily food, in summer, to every animal intended for hunting or riding. If a horse is supported entirely upon the grass which he collects in a rich pasture field, or upon that which may be cut and carried to him in his paddock, he must consume a much greater bulk than of hay in an equivalent time, to afford nourishment to the system. Grass being very full of sap and moisture, it is very rapidly digested, consequently the horse must be continually eating it. This distends the stomach and the bowels, and the faculty of digestion is impaired; for the digestive powers require rest as well as other organs of the body, if they are to be preserved in perfect condition.

By the custom of grazing, the muscular system is enfeebled, and fat is substituted. This may escape the notice of superficial observers, who do not mark the distinction between the appearance of a fat and muscular animal; who conceive, so that bones are covered, and the points are rounded, all that is requisite has been attained. But that is a very fallacious impression. Let any who is skeptical on this point ride a horse in the summer which has just been taken out of a grass field, along with another kept on hay and corn, at the moderate rate of seven or eight miles in the hour;

the grass-fed horse will sweat profusely, while the other will be perfectly cool and dry. This proves that the system of the one eating grass overabounds with fat, and those portions of the blood which are destined to form that deposit. Those who advocate grazing, will no doubt exclaim:—"Oh, this is a test of condition which is not required of young and growing animals." I beg to state that it is highly important, if the acme of condition is to be attained by animals of mature age, and that the growth and gradual development of their frames should be composed of those healthy and vigorous elements upon which the structure of future condition can be raised. Animal substances are to a very great extent subservient to the nature and quality of the food with which the individuals are nourished. I believe farmers would find it much to their advantage if they were to consider this subject with reference to feeding cattle and sheep, so that they might select those kinds of food which abound with properties more conducive to the production of flesh than fat. There is no kind of food which the horse consumes that has not a tendency to deposit some portion of fat. It is a substance which must exist to a certain extent; but as it is muscular power, not a predisposition to adipose rotundity, which enhances the value of the animal, and reasons are obvious what guide should be taken in the selection of food.

I have, on a former occasion, hinted the propriety of bruising the oats, and I will now state my reasons for doing so. The first I will mention is economy. Three bushels of oats, which have undergone that process, are equivalent to four which have not, and the animals which consume them derive greater benefit. Various means are adopted to induce horses to masticate their corn, all of which are ineffectual. Scattering them thinly over the surface of a spacious manger, mixing a handful of cut hay or straw with each feed, and such like devices, will not cajole the animal to the performance of mastication. A horse that is disposed to bolt his corn, however carefully it may be spread along his manger, will soon learn to drive it into a heap with his nose, and collect as much with his lips as he thinks fit before he begins to masticate. Whatever food enters the stomach of any animal, and passes away in an undigested form, may be considered as so much dross or extraneous matter, which, not having afforded nutriment, is prejudicial to the creature which consumed it.

A mistaken notion of economy is often the incentive to turning horses out in the summer, to be entirely dependent upon grass for their support. A few remarks will surely dispel that error. Twen-

ty-two bushels of oats—allowing one bushel per week from the 15th of May to the 16th of October—may be estimated as the produce of half an acre of land, and half a ton of hay that of another half acre, although a ton and a half per acre is not more than an average crop. It requires at least an acre of grass land to support a horse during the period above named. CECIL.

### Foot-Rot in Sheep.

Major H. T. Brooks testifies, through the Rural New Yorker, of his knowledge and belief concerning foot-rot in sheep:

Having been recently called a considerable distance to testify in a court of justice, so called, as to the nature of the foot-rot, and the possibility of a remedy, and finding that very crude ideas exist on the subject, in spite of the intelligence of the age and the general progress of knowledge, I will give my ideas briefly, for the general good.

1. Foot-rot can be cured. Whoever doubts it is grossly ignorant, and if his doubts are of long standing, probably hopelessly so.

2. The cure does not depend so much upon the efficacy of some particular medicine, as upon the general management.

3. The first thing to do is to yard the flock, and select all that appear unaffected and put them by themselves. With a swab wash their feet between the hoofs with a strong solution of blue vitrol, or diluted nitric acid, or corrosive sublimate dissolved in alcohol, or something that will destroy any infection that may attach to the foot. Put them in a pasture where no diseased sheep have been, and carefully watch the "first appearance of evil." If a sheep appears at all lame, remove it at once, and it may be best to re-examine and swab them all after about a fortnight. Watch them close for a few weeks, and don't let any sheep stay in the flock after it shows any signs of being affected.

4. Carefully examine all the lame sheep; remove with a sharp knife the diseased flesh and loosened horn or hoof, carefully avoiding to cut the live flesh, and then apply blue vitrol, or some other approved remedy, and put the sheep into a dry, clean place. Repeat that process once a week till they are cured—and cure them you can.

Failures occur because people fancy there is some omnipotence in the medicine—whereas much depends upon judicious surgery, and more upon unremitting attention until the cure is complete. Cures will never be effected by semi-annual doctoring. The first application will cure the majority of cases; but if you wait till they are re-infected before you look at them again, you are back to the starting place; and if you persevere till all are cured but one or two, and leave them to spread the infection, as is very often done, then you will never be rid of the disease. But if you follow it up skilfully, without omission once every week, you will surely have them sound in from four to six weeks—unless, very rarely the disease may be dormant for that time in cold weather, and in that case be ready for it when it comes out.

No farmer should tolerate the foot-rot in his flock—it is a crime and a disgrace to suffer it to continue year after year. I have knowingly bought it a great many times, but I have waged war upon it unremittingly and successfully.

## The Dairy.

### Ten Rules for Making Butter.

In making good butter, there are several nice operations to be gone through with which require an eye to cleanliness, forethought, and some little experience.

1. On milking clean, fast, yet gently, regularly twice a day, depends the success of the dairyman. Bad milkers should not be tolerated in a herd, better pay double price for good ones.

2. Straining is quite simple, but it should be borne in mind that two pans, about half full each, will produce a greater amount of cream than the same milk in but one pan; the reason of this is the greater surface.

3. Scalding is quite an important feature in the way of making butter in cool weather; the cream rises much quicker, the milk keeps much longer, the butter is of a better color, and churns in one half the time.

4. Skimming should always be done before the milk becomes loppered; otherwise much of the cream turns into whey and is lost.

5. Churning whether by hand or otherwise, should occupy forty or fifty minutes.

6. Washing in cold soft water is one of its preserving qualities, and should be continued until it shows no color of the milk by the use of the ladle. Very hard water is highly charged with lime, and must in a measure impart to it alkaline properties.

7. Salting is necessarily done with the best kind of ground salt; the quantity varies according to the state it is taken from the churn—if soft, more; if hard, less; always taking the taste for the surest guide.

8. First working, after about twenty-four hours, is for the purpose of giving it greater compactness.

9. Second working takes place at time of packing, and when the butter has dissolved the salt, that the brine may be worked out.

10. Packing is done with the hands or with a butter mall; and when butter is put into wooden vessels, they should be soaked two or three days in strong brine before using. After each packing cover the butter with a wet cloth, and put a layer of salt upon it; in this way the salt can easily be removed at any time by simply taking hold of the edges of the cloth.

Butter made in his way will keep any length of time required.

### The Skunk.

The skunk will now and then eat a chicken—but very rarely. What does it live on then? Beetles, crickets, grasshoppers, mice, etc. Recently much has been said about this animal; and we are glad to see mostly in its favor. The skunk is a benefit to the farmer; and not a single one should be killed, unless it gets to chicken thieving, which, of course, is not very pleasant. And then the chickens should be taken care of rather than the skunk. If you do not hurt it, it will not hurt you; and it will weed your ground of insects, and charge you nothing for it. One of our exchanges calls it the "farmers' friend."

## Horticulture.

From the Country Gentleman and Cultivator.

### Culture of Hops.

The successful culture of the hop implies watchful and incessant care during the first stages of its growth. They should be planted upon a warm, deep, loamy soil, on a dry bottom, which is best found upon a sandy, gravelly or stony porous subsoil, affording drainage from off and about the roots of the plants during the rainy and frozen season of the year. Hops are one of the most exhausting among cultivated plants, both in respect to the organic and mineral constituents which are extracted from the soil. Therefore rotation of crop should not extend more than four years on the same ground, unless the soil is supplied with that which the hops most extract. In comparing the table of analysis, we find that both lime and potash enter largely into the growth of both the plant and hop.

The usual mode of planting is to lay out the ground in rows 7 and 8 feet asunder. The best and quickest way to proceed in laying out the ground is to use a horse and corn marker, by having the pins in the marker 7 feet, the distance required for the rows one way. Marking the rows the other way is usually done by stretching a rope the distance desired, at which time the setting is done by the guide of the rope, by setting the hill where the rope crosses the mark made by the corn marker. The setting is done the first of May, by setting the roots of the previous year's growth, called runners, which are carefully selected, so as to get healthy roots, which are cut into pieces with two setts of eyes to each section—setting them with a dibble in the ground, with five setts in a hill, setting one at each corner of a square of 6 inches, and the fifth in the center of the square, all in an upright position, with the eye buds pointing upwards, and all beneath the surface of the earth at least one inch. In planting there should be much attention paid to the introduction of a sufficient number of the male plants, one hill in two hundred, or about five on an acre. They ought to be planted at regular and known intervals, so that in subsequent years they may not become indiscriminately mixed. The first year, planting is usually done with corn, taking care not to encumber the hop hill; the after culture the same as for the accompanying crop of corn. As the corn matures and is fit for cutting up there should be much care taken not to cut the hop vine, which would be very likely to bleed, so as to injure the hill. In the succeeding month of October, or the first of November, there should be placed over each hill of hops at least one or more good shovels of well rotted manure for winter protection, and to enrich the ground for the benefit of the plant the succeeding season culture, which requires more care and watchfulness than the first year to secure a good crop of hops. As soon as the plants make their appearance above the ground the manure should be carefully spread over the hill. Then the poles are introduced, varying from 18 to 20 feet long, with two at each hill, and inserted in the ground in perfectly straight lines upon each row, and incision being made with the hop bar in the ground

to the depth required for firmly holding the poles. Then the plowing commences, which is done by one horse, having the plow kept clean, beginning in the center of the rows, turning the furrow from the hill the first time plowing—subsequent plowing the furrows should be turned toward the hill.

The cultivator is used after each plowing to level and pulverize the earth, which should be kept smooth and level at all times. The process of hoeing the first time is done as near as may be as the first hoeing of corn. The vine is usually tied up before the second hoeing, or as soon as the vine has grown from two to three feet in height; they are tied by selecting two of the most even vines for each pole, the strong rank ones being rejected, and subsequently tied until sufficient strength is acquired in the vine to force itself up to the summit of the production of its flower. The culture in the mean time is performed with the plow and cultivator and hoe, earthing up the hill a little the second time hoeing, keeping the ground clean and pruning the hills. Never suffer but two vines to grow upon each pole, which are preferable to a greater number.

It may be here remarked that hops want richness of soil, which should be kept up in order to be a successful grower. Leached ashes is a good substitute for potash, applied to the hill after the first hoeing. When it is found to be important to use lime, it should be well slaked, half a shovelful thinly applied to a hill in the month of October or the first of November, when lime is used. Muck should be applied to the hill in the place of manure for winter protection. Salt has also been found to be a good fertilizer when the vine is disinclined to run the pole; by making a brine and applying it in small quantity to the hill, it acts like a charm in facilitating the vine in running the pole. I have practically used them all, and found the productions good.

Picking usually commences about the first of September; as the flower becomes hard, with a bright yellow color on opening it, the envelope of the seeds a purple color, and the kernel or seed itself hard, they are ready for harvest. Picking is mostly performed by women with aid of men's help, to extract the pole from the ground, severing the vine some three feet above the ground, and placing them upon a frame over a box, which is subdivided into four apartments, and accommodates as many pickers, with each a box three feet long, two feet deep, and eighteen inches wide, each picker filling the box two or three times during the day, for which they receive from twenty to twenty-five cents per box.

**DRYING.**—The kiln for the operation for drying should be constructed with much care, with stoves, and arranged in a room, and the hops laid and spread upon a cloth floor above, resting upon slats, where they dry in about twelve or fourteen hours. Hops in the green state, if left standing long after picked, are liable to become heated and change color, hence the kiln should be made sufficiently large for curing as fast as picked, at intervals of twelve to fourteen hours for each kiln.

Madison county, N. Y. D. B. SHAPLEY.

—A friend, in one of the hop growing districts of New York, has sent us cuttings of both pistillate and staminate plants, which we shall grow for the purpose of supplying vineyards. It is proba-



ble that the white willow will make good hop poles, if so, hops can be cheaply grown with us.

### Why Nursery Trees Die.

I meet a man with a wagon-load of trees, which he has just purchased from the nursery. These trees were dug last fall—that is, one of Overman's tree-diggers was run under them. The farmer goes to the nursery, selects his trees, and himself and the nurseryman take hold of the top of the tree, and proceed to pull it out of the ground. Once out, great care is taken to shake the soil off the roots as clean as possible. It is thrown down at the end of the plat, where it lies in the sun until the load is dug or pulled. It is then put into the wagon, no covering is put over it. The roots lie fully exposed to the sun and drying wind. The farmer drives his load of trees from five to thirty-five miles. They are left in the wagon until morning; then they are drawn to the field—if it happens to be convenient to put them in the ground—and scattered over it near where they are to be planted. No matter how hot the sun, how exhaustive the wind, nor how dry the soil, nor how long they are to lie out of the ground, the trees are not heeled in, nor are the roots puddled when planted. Down they are put into a little, round, dry hole—and if they do not grow and bear fruit right away, the poor nurseryman is a rascal, and his trees are good for nothing. I pass a nursery and see what suggests this item; I visit a farmer who is planting, and the way he leaves his trees illustrates what I have written.—*Rural N. Yorker.*

### Illinois State Horticultural Society.

The officers of the State Horticultural Society were in Rockford on Wednesday and Thursday last, and fixed on the time for holding the next State Horticultural Fair, and also made up the premium list. The fair will be held in this city the second week in September, commencing the 9th and ending the 11th. The premium list will be published at an early day. The following resolutions were adopted:

*Resolved*, That we hail with pleasure the growing interest in Horticulture manifested by the people of the State, and that we gladly accept the compliment offered by the County Horticultural Society of Tazewell in becoming auxiliary to the State Society.

*Resolved*, That we earnestly recommend the formation of Horticultural Societies in the different towns and counties throughout the State.

*Resolved*, That the Executive Committee of the State Horticultural Society tender their thanks to the Agricultural Society of Winnebago county for the offer of their Fair Grounds to hold their next annual exhibition, and gladly accept the compliment.

*Resolved*, That the Executive Committee of the State Agricultural Society urge upon the Legislature, at their adjourned meeting in June, to ac-

cept the donation of land offered by Congress for agricultural education.

*Resolved*, That we tender our grateful thanks to the citizens and horticulturists of the city of Rockford for their kind and gratuitous entertainment during our executive session.

GEO. W. MINIER,  
O. B. GALUSHA,  
C. N. ANDREWS,  
W. C. FLAGG,

Executive Committee.

It was decided by the Committee that, in the awards upon fruits, allowance for difference of latitude should be made, in view of the early date of the Fair and that unripeness should work no disadvantage to specimens from the Northern part of the State.

The following gentlemen were chosen delegates to represent the State Horticultural Society at the Chicago Canal Convention, June 2d, 1863: O. B. Galusha, Lisbon; C. W. Murtfeldt, Rockford; C. R. Overman, Bloomington; W. C. Flagg, Alton; T. J. Evans, South Pass.

H. P. Kimball, of this city, was chosen Local Secretary, to whom communications here should be addressed.

During the stay of the officers here, they visited many of the gardens of the city, and expressed themselves in very warm terms of commendation at the attention paid to horticultural interests in this city.—*Rockford Register*

### Grind the Tools.

Keep the tools sharp or they will not cut. A dull tool wastes time, and he who permits it to work when in that condition, is a dull fellow. The best turners are those who have the sharpest tools; the most successful surgeons use the keenest knives, and the most enterprising and energetic men in civil life are those whose wits have been early ground sharp, and whose perceptive faculties have been whetted by sore experience in early life. A dull tool is a useless implement, and a thick headed, unobservant person is the only one who should be found wielding it. The obtuse edge neither cleaves nor separates, but bruises and works off by attrition particles of the substance on which it operates. Grind up the tools and sharpen the wit as well; if one is keen, the other will in all probability be in a similar state, from the force of sympathy alone. A boy with a dull pocket knife is one who swings on the gate and who dodges his duty; he is one who in after life will be a dunce and a cumberer of the ground; he will add nothing to the world of science, neither will he take from it; his existence is merely animal, his thoughts and ideas, if he has any, wholly conventional. His comrade with a keen blade, makes models of machinery, of boats or steamers, and in time he becomes a George Steers, or so develops his mother wit as to be a decided requisition to the community. Let us have all the tools in good condition, sharp, trenchant, and always ready for service; then, and then only will the result produced be equal to the time and labor expended.—*Scientific American.*



## Miscellaneous.

### Our Dependence.

It is a curious fact, and one not generally realized, that the world's population is dependent for its existence upon the preceding year's produce. Did the earth refuse to yield her fruit for one season, it would depopulate it. How much then are we dependent upon a single year's growth. It must be confessed the earth has been faithful. We need but plant to reap. It is gratifying to see man trust to nature—rather to the Parents of both man and nature. How accurately is carried out the promise that seed time and harvest shall never fail—else man, for whom all is made, would perish. Does not this seem like an overruling providence?

### Estimating the Capacity of Barns.

Very few farmers are aware of the precise amount of shelter needed for their crops, but lay their plans of outbuildings from vague conjecture or guessing. As a consequence, much of their produce has to be stacked outside, after their buildings have been completed; and if additions are made they must be put up at the expense of convenient arrangement. A brief example will show how the capacity of the barn may be adapted to the size of the farm.

Suppose for example, that the farm contains 100 acres, of which 90 are good arable land, and that one-third each are devoted to meadow, pasture and grain. Ten acres of the latter may be corn, stored in a separate building. The meadow should afford two tons per acre, and yield 60 tons; the sown grain 20 acres, may yield a corresponding bulk of straw, or 40 tons. The barn, should, therefore, besides other matters, have a capacity for 100 tons, or over one ton per acre as an average. Allowing 500 cubic feet for each ton (perhaps 600 would be nearer) it would require a bay or mow 40 feet long and 19 feet wide for a ton and a half to each foot of depth. If twenty feet high it would hold about 30 tons. If the barn were 40 feet wide with 18 feet posts, and 8 feet of basement, about 45 tons could be stowed away in a bay reaching from basement to peak. Two such bays, or equivalent space would be required for the products of 90 well cultivated acres. Such a building is much larger than is usually allowed; and yet, without it there must be a large waste, as every farmer is aware who stacks his hay out; or a large expenditure in pitching and re-pitching sheaves of grain in threshing.

In addition to this, as we have already seen, there should be ample room for the shelter of domestic animals. In estimating the space required, including feeding alleys, &c., a horse should have 75 square feet; a cow 45 feet; and sheep 10 square feet each. The basement of a barn, therefore, 40 by 75 feet in the clear, will stable 30 cattle and 150 sheep, and a row of stalls across one end will afford room for 8 horses. The 30 acres each of pasture and meadow, and the 10 acres of corn fodder already spoken of, with a portion of grain and

roots, would probably keep about this number of animals, and consequently, a barn with a basement of less size than 40 by 75 feet would be insufficient for the complete accommodation of such a farm in the highest state of cultivation.

J. J. THOMAS.

### A New Flax Dressing Machine.

If there is any man who believes that the days of invention are past, he could have this belief shaken in no better and more effective way than by thoroughly examining the new flax dressing machine which has been patented by Messrs. Mallory & Sanford, and which may be seen at their office, corner of White and Centre streets. This flax breaking and dressing machine is, as an improvement, of inestimable value to flax growing farmers.

It consists of two fluted rollers through which the straw passes, being completely broken in its passage, and entirely divested of all refuse. This is done in such manner that the use of the scratching mill to free the lint of woody particles is rendered almost unnecessary.

This machine, which may be classed among the scientific curiosities of the day, occupies scarcely as much room as the bellows in a blacksmith shop. It is made of four different sizes, the first weighing twenty-five pounds and capable of dressing three hundred pounds of straw in ten hours; the second measures two feet by two feet, capable of dressing six hundred pounds per day; the third is three feet by three feet, and can dress one thousand five hundred pounds per day, requiring less than one horse power; and the fourth is four feet by four feet, which will dress two thousand five hundred pounds per day requiring less than two horse power.

This machine makes one ton of fibre out of every four tons of straw, and so separates and mauls the flax that it is not required to run the straw through the rollers more than once.

Unrotted flax passed through this machine is excellent stock for the manufacture of paper. At Dayton, Ohio, four dressers are at work making stock for the paper manufacturer, at a mere cost of \$10 per ton of lint.

It is estimated that this machine can prepare the flax for the paper manufacturer at a cost of two and a half cents per pound; a price less than that paid for rags before the rebellion began.

The portability and the great expedition of this new dresser in preparing flax for the manufacturer are entitled to the highest consideration by all who are interested in the cultivation of flax.—*N. Y. Advertiser.*

### New England as a Bread Country.

Let us take a retrospective glance into the latter part of the last century, and see how the people of New England earned their daily bread. At that time there were no grand Erie canals or railroads, means of conveyance from the great West, to supply us with the staff of life, as at present, nor were there inhabitants beyond the Ohio river to cultivate the exhaustless soil of those now populous States, then inhabited by savage beasts and more savage men. The people of New England were under the necessity of producing most of their

bread materials, and, of course, when cold, frosty seasons ruled, grain was very scarce and dear, and would sometimes rise to almost famine prices. Under such circumstances the greatest economy became necessary, or the scanty crops could not be made to meet the next year's harvest.

At that time the only resource for a supply of corn was the Southern States, whence a small quantity was annually imported to our northern cities, to supply their wants in case of a failure of the crops of New England. This corn was called "Virginia corn—a flat, light grain, said to grow on exhausted soils to the amount of seven or more bushels to the acre. The skippers of fishing vessels, after their summer voyages to the north, would for a winter job, sail to Virginia, and take a cargo of corn and bring it north. This corn, though very dear, could be purchased cheaper than that of New England growth. In those days of bean porridge, hasty pudding and good meat, wheat flour was but little used among farmers in country towns; but few of them were able to buy it. A little was afforded for the upper crust of pies, as a luxury, on holiday occasions. Previous to the commencement of hop raising in this vicinity, farmers depended mostly on the sale of grain and meat to supply themselves with money to pay taxes. If pork and beef were to be fattened for market, grain was the principal ingredient to effect that object. The grain exhausting process of those days impoverished the land of New England to such a degree that its restoration to fertility can hardly be expected, with the present advantages of obtaining manure.

The deterioration of pastures and grain fields throughout New England is regretted by the farming community, as an evil, which has caused reflecting men to search for a remedy. The present generation, reduced to the fare of their fathers and grandfathers, would grumble loudly at the dealings of Providence with them. To be under the necessity of resorting to the substantial food of their predecessors, instead of hot biscuit, custards, pies, cakes, green tea, coffee, &c., would create a rebellion in words if not in deeds. Effeminacy has kept pace among us in proportion to change in the manner of living. Our fathers fared hard. To get luxuries from the sterile soil of New England was work indeed, and had not new avenues for business been opened, luxuries would only be known by name in this country of "ice and granite."—SILAS BROWN, in *Boston Cultivator*.

—Happy, thrice happy the New England of to-day, the music of her looms, her work shops, the loading and unloading of rich and varied cargoes but keep time to the murmuring of her rivers, whose motive power, guided by the genius of her workmen have made this change. No longer the hillsides of New England are asked for bread—the iron sinews of her work shops draw upon the prairies of the West, and the draft is duly honored. A thousand miles away from her surf-beaten iron-bound coast, away where the sun smiles out upon the far stretching fields of the West, she seeks her bread. Not only the wheaten loaf, but the juicy ham and the stall fed ox are sent her. She luxuriates on the fat of the land, while the great West is clothed from her busy looms, and a thousand

comforts go out from her turning shops. Such are the ties that bind New England and the West in indissoluble bonds of union—the ties of commerce, the ties of reciprocity and the ties of consanguinity. The blood of New England flows freely through the families of the West.

We have never seen New England, but we love her for what she has done, and we love her because our interest is bound up in her. We need for nothing from her energy, for she grasps the riches of the earth, to make her homes happy, and to build up institutions that give man power over matter. Let us have more of New England homes, and more of her social virtues. En.

### What Shall We Fence With.

This is a question that interests every farmer, as the cost of fences makes up a large percentage of the running expenses of every farm.

Mr. Cornell, at the annual meeting of the New York State Agricultural Society, delivered an address from which we make the following extracts:

My attention has been directed to our present system of fencing, and the enormous outlay of capital it requires annually to support it, and hence the question, have we been governed by correct principles in the enclosure of our fields, or have we been drifting along on the tide or apparent necessity, without reference to principle?

In England the Agricultural Societies are offering premiums to those who will eradicate the greatest amount of hedge fence during the year. Some of the tenant farmers insist upon a stipulation in their leases, authorizing them to reclaim the lands occupied by the hedges, thus adding to the productive area of the farm, and lessening the annual outlay for supporting the fence. I have heard of one such farmer who had thus added forty-five acres to the tillable land of his farm within a few years.

On the continent of Europe there are no fences, or at least so few that they are an exception to the rule. The traveller will pass hundreds of miles without seeing a fence of any kind, or even noticing any land marks dividing farms, and no encouragement is offered there by Agricultural Societies for enclosing farms with fences.

May it not then be fairly questioned whether we are not pursuing the practice of fencing our farms into small fields at a large annual expense greatly to our own disadvantage. With a view of inducing our farmers to reflect upon this subject, I submit the following remarks:

To fence a farm into square fields of two and a half acres each, crediting half of the fence to the adjoining field, requires forty rods of fence, or sixteen rods per acre, which at \$15 per thousand for rails, and \$10 per thousand for stakes, will cost at least 30 cents per rod, or \$4.80 per acre, and entail an annual expense in the interest of money, natural decay of material, and labor for repair, of nearly or quite \$1 per acre. Fields of 5 acres each require 11½ rods per acre, costing \$3.45 per acre. Ten acre fields require eight rods of fence per acre, costing \$2.40 per acre. Twenty acre fields reduces the fence to 5½ rods per acre, at a cost of

only \$1.65 per acre. Forty acres in a field requires but 4 rods per acres, costing only \$1.20 per acre, and 100 acres may be enclosed in one field with 2½ rods per acre, costing 75 cents per acre.

Small farms are quite generally fenced into fields of five acres each, and large farms are regarded as satisfactorily divided if the fields measure fifteen or twenty acres each. Assuming ten acres as the average size of fields, into which our farms are divided by fences, we arrive at the following result as to the cost of fencing:

A farm of 100 acres thus divided would require 800 rods of fence, which of rails and stakes would cost \$240, to which must be added ten per cent for annual decay and repairs, and seven per cent for the use of capital invested in the fence, making \$40,80 per annum. This fence will occupy a strip of land at least four feet wide, and of the length of 800 rods will make twelve and a half acres, costing say \$30 per acre, which we will assume to be the average value of the farming lands of the State, making the sum of \$375, the annual interest of which is \$26.25 to be charged to the annual fence account, swelling it to \$67.05 as the annual cost of sustaining the cheapest class of fence on a farm of one hundred acres.

To the above might properly be added a considerable sum as damages sustained annually from the rank growth of noxious weeds which find shelter in the fence corners, and ripen a luxuriant crop of seeds to dispute the possession of the adjoining fields, on each return of spring, with the seeds upon which the farmer relies for his crop, increasing the expense of cultivation, and diminishing the productiveness of the soil.

The sum representing the cost of the fence and interest on the value of land occupied by it, multiplied by the 120,469 farms of 100 acres each, that the improved lands of the State of New York would make if thus divided, represent the vast sum of \$7,830,485, as the annual cost of fences in this State. The above estimate is based upon the cost of a cheap rail fence. The cheapest fence I can build on my farm, is of hemlock boards and chestnut posts, costing me one dollar per rod. It is therefore apparent to my mind, that the average cost of fencing is much above the figures that I have given, and may safely be assumed to cost \$10,000,000 per annum. As an equivalent for this vast annual outlay of money, we enjoy the privilege of turning our cattle out to harvest their own living, by grazing the pastures and gleaning the stubble fields, or running at large in the public highway. Is it a good investment? Do we get a fair and full equivalent for the investment of \$150,000,000, for such it really is, as \$10,000,000 which we annually pay to sustain our fences, with our farms as collateral, would secure the use of that sum by loan? I think we do not, and I desire that our farmers should begin to reflect on this subject, and see if it is not time to begin a reform in that direction.

—It is true our fields are larger, but then the cost of fencing is enormous, on account of the extraordinary high price of posts and boards, of which to make them. With our system of farming and peculiar climate we do not intend to advocate dispensing with fences, but on the other hand to encourage them and cheapen their cost.

We not only want them to guard our fields from unruly stock, but we want them to change the climate, to compel the clouds to give summer showers, and a more equable distribution of rain. We have introduced the remarks of our New York friend to show what they suffer in that State, and what we too would loose by continuing the use of dead fences. We have, or soon will have, an abundance of fencing material with which to inclose our fields at a cost not exceeding twenty-five cents a rod, and that, too, without any large percentage of repairs.

#### THE USE OF FENCES.

First, we want fences to divide our fields, so as adjust our farms to a mixed husbandry of grain and stock, as well as to enable us to take advantage of a rotation of crops. In the next place we want live fences to give us more timber, so as to preserve a due proportion of moisture. In this way a perceptible change can be made in the climate within the next ten years. The fuel question we now pass over, as well as that of timber for building purposes, and confine our remarks to fencing alone. The farmers of the prairies have decided on having fences at all events so that we need spend no time over the reasons pro and con, but they have not decided what fences they will have.

#### THE OSAGE ORANGE

Has been introduced a long time, and just as people begin to understand its value and the proper mode of using it for fencing purposes, the stock of plants and supply of seed failed. That this plant is the best of all the shrubs or trees proposed for live fences we have no doubt. It is cheap, durable and efficient in all cases where the land is rolling or well drained. In using it for a fence we should cut it to the ground after the second year and then let it alone.

#### THE WHITE WILLOW.

In low grounds where no other fence trees will live the willow must be used, it is there that it makes a fine fence in a short time. It is also valuable in all situations where we wish to break off the prairie winds, but unless it is needed for this use we should only put it on the low grounds. The rapid growth of this tree will have a decided influence on the climate as such a large amount of it has been planted the past spring. In England where the air is always saturated with moisture from the ocean, hedges and timber are of no value in obtaining an adequate amount of moisture, but with our continental climate subject to drouth the case is quite different. We need timber belts for this purpose, and if we can at the same time

make them useful for fences, we shall have accomplished an important result. There are

#### OTHER WILLOWS

That will make good fences, in fact the whole family of the timber willow, such as the golden so common throughout the country is but little inferior for this purpose, while its great beauty should give it a place in the fence row. In putting out fences of this kind we should use it liberally with the white and others for the sake of a contrast. We do not call these hedges for they are not, but more properly live fences.

We have no doubt but that crab apple will make a good fence, as will the common seedling apple as we have samples of them now growing, not in fences, it is true, but when they have been planted in nursery rows for the past six years, now present and impenetrable fence to all live animals except hogs.

#### OF HEDGES AND SCREENS.

For a hedge or screen that will turn fowls, pigs and stock of all kinds, the Barberry must stand as number one. A hedge of this is absolutely bird proof, and when planted about the garden or house grounds, will effectually protect it from approach except over it or through the gates, for orchards against bipeds it is very valuable. The prejudice against it on account of rusting wheat is not well founded, and it should be given a very important place on the farm and about the garden. It bears shearing remarkably well, and the wood being soft and twigs small is easily cut with the common hedge shears. In May and the first of June it is beautiful when in flower, and its profuse crop of delicate red berries makes it attractive during the autumn and winter.

The Privet will make a good screen and is also highly ornamental when it will stand, but should not be put in exposed positions. With us it loses its leaves late in winter and thus becomes deciduous.

There are, doubtless, other trees that will make good fences, but the list above is sufficient for all practical purposes, and if we use them to advantage, we shall lessen our bills for dead fences which are of no other value than to protect our fields from unruly stock, while the live fence adds to this great beauty, wards off drouth, and holds the moisture in our fields when most needed.

#### Advice Gratis.

Out in a town not far from Hartford, Conn., a fellow owed a neighbor a small sum of money, and agreed that when he killed his hog he would di-

vide pork with him to settle the claim. When the time for butchering came round he came to the conclusion that he wanted the whole hog himself; but how to get out of the bargain troubled him. He finally consulted an acquaintance who was noted for "strategy," and laid the case before him. Acquaintance said—"It is easy enough; I'll tell you how to manage it. You kill the hog in the afternoon, and after it is dressed hang it out on a tree, so that your neighbor can see it. Then, late at night you go and take the hog in and pack it down. In the morning tell your neighbor and everybody else that somebody stole it."

"I'll do so," said the fellow.

He carried out the instructions, hung the hog out, and only waited for late hours to come, to finish the business.

In the meantime, however, the acquaintance who had advised the movement, came round and carried the hog off so that when the owner went out after it, and looked where it was, it wasn't there. This, of course, was a state of things not anticipated. The next morning he met his adviser and said to him:

"I did just as you told me; hung out the hog, but when I went out at midnight, somebody had stole it."

"That is right; stick to it."

"No, but honestly, somebody did steal it."

"That's it; stick to it."

"D—n it, won't you believe anything? I say somebody did really, actually steal it."

"That's it, stick to it; nobody will ever think your carried it into the house. Big thing on your neighbor, eh?"

#### Cure of Hydrophobia.

We find the following remarkable case of the cure of hydrophobia reported in the New York papers:

Oscar Barch, a shipwright, was bitten on the 10th inst., upon the right hand. The wound was slight and he gave it no attention. On the Sunday night following, symptoms of hydrophobia set in, and it became necessary to bind him. He was unable to swallow, was convulsed at the sight and sound of water, and tried to bite.

Four physicians called did not afford him any aid. He complained of pains in the back of his head and along the spine, radiating around the body. On the 13th, Dr. Louis Baur, the Health Officer of Brooklyn, took entire charge of the case and actuated by the theory that the poison had expended its violence upon the spinal cord, as it



always does, having caused inflammation of that organ, directed his attention upon it. Without administering a grain of medicine, he ordered a thorough (wet) cupping to the posterior part of the head and along the spine, following it up with ice applications to the same extent. The patient, of course, had to lie on his stomach, and was well secured by mechanical constraint during this treatment, which was continued unabated without interruption, for three successive days and nights. The patient was protected against any return of paroxysms. His pulse and breathing became quiet, the pains gradually left him, and isolated muscular twitchings became likewise extinct. Since Saturday last no outward symptoms have disturbed the steady progress of recovery, and on Wednesday last the patient was discharged from medical treatment, apparently in the best state of health. The case has excited a good deal of attention. The suddenness of the attack, forty-eight hours after the bite, marks it as an unusual instance, but the symptoms were those of all cases of hydrophobia.

### Coal Ashes for Garden Walks.

As many persons have at this time large heaps of coal ashes, they can dispose of them in no way to better advantage than by hauling them into their garden alleys. Remove from four to six inches of the dirt, and, having screened the ashes, or separated the core and cinders, first apply the coarse stuff, then oyster shells if you have any on hand, small stones, glass or pieces of bricks, and top-dress with the ashes. Roll it, and you will have one of the best walks ever seen in a garden. The ashes become very hard, and are never wet, winter or summer, if the weather gives the water the least chance to get away. In summer, in five minutes after a shower there will be scarcely enough moisture to dampen the soles of your shoes.

If there is not sufficient ashes for all the walks, commence with the principal ones, and in a couple of years the garden will be complete. Then each spring alter, give them a slight top-dressing of the ashes, which will about consume your annual stock.

**GRAIN ELEVATORS IN CHICAGO.**—Another immense Grain Elevator, said to be the largest in the world, has just been finished in Chicago, and still another, of equal size, is nearly completed. They have been built in the most substantial manner, and are furnished throughout with the most perfect machinery, including a large number of Fairbanks' 500 bushel Hopper Scales,

which insures a correct weight to buyers and sellers of grain. The amount of grain which can be handled in one of these Elevators in a single day is enormous. The increased production in the North-west is perhaps shown in no way more clearly than by the rapid increase in Chicago of the facilities for receiving and shipping it.

**DRIED FRUIT FOR THE SOLDIERS.**—The season for picking and drying fruit is at hand—and now, boys and girls, it is time you were organizing your forces to pick and dry for your friends in the army. Let the soldiers be cheered with the thought that their friends are at work for them, while they are exposing their lives and health to preserve their homes and this beautiful country from being laid waste and desolate by the scourge of war. You can help fight the battles of your country by furnishing the soldiers with some of the luxuries with which it abounds, thereby keeping up his courage by being reminded of the dear ones at home; and when prostrate by exposure or wounds, your work will aid in restoring him to the field again, or to his friends.

Don't let a currant, cherry, raspberry or blackberry be wasted. Your mothers will help you to make cordials and wine, and to take care of what you dry—and the soldiers will bless you for furnishing aid instead of a fire in the rear.

A SOLDIERS' FRIEND.

### Duties on Imported Woolens.

We have been told a good deal of late, says the Ohio Farmer, of the sterling virtue, etc., of New England manufacturers, but some skeptical Western wool growers thought they could see too wide a gap between the prices these men propose to pay for wool and the prices they demand for woolens. Some of the New York importing merchants seem to feel their toes pinched from the same quarter, in the decision of Secretary Chase. To abate this pressure, a meeting of importing merchants was held at Delmonico's on the 1st of June, for the purpose of considering the recent decision of the Secretary of War in regard to the duties on woolen goods.

Wm. Watson was called to the chair, and Sam'l McLean chosen Secretary.

Mr. Hutton made a few remarks, suggesting that it would be well for the merchants to organize themselves into an association for their mutual protection in these matters. He alluded to the onerous duties now imposed on goods for foreign manufacture, and stated that the matter had been laid before Secretary Chase the last time he was in the city. He felt satisfied that the Secretary had been led into an erroneous decision which would be overruled by the Courts. There was not an article now that cost 40 cents per square yard upon which the duty had not been increased 35 cts, and in some instances to 70 and 80 per cent. They were at the mercy of the New England manufacturers, and he had heard it said they intended having such enormous duties imposed as would pre-



vent the importation of such goods, much to the injury of the middle classes by whom they were needed. He thought Mr. Chase might perhaps reconsider his decision, or at all events allow one suit to decide the whole. Some further discussion having taken place on the subject, a committee was appointed, composed of B. H. Hutton, A. T. Stewart, Chas. E. Millner, Ed. S. Jaffray and Samuel McLean, to prepare a plan of operation, and submit it for consideration at a subsequent meeting.—*Ohio Farmer*.

An incidental result of this war will be to stimulate the growth of domestic wool, and to increase its manufacture among us. We have been long enough held in bondage to the large New York importing houses, and it is time that there should be an end of it. The farmers of the West have an interest, it is true, in the sale of grain to England, but there is other goods that we can take in exchange to keep up the balance of trade and allow of the supply of woollen goods to the mills of New England. The truth is, our trade with New England is of more value to the cause than that of Old England. We have an immense water power in the West, and some day this fact may be made apparent.

### New Sheep Book.

It is with pleasure that we copy the following announcement of a new work on sheep husbandry. It is particularly opportune, when such changes in the market for wool have been thus suddenly forced upon us. As soon as the work is ready we shall notify our readers of the fact, that they can avail themselves of it at an early day. Ed.

—Now in preparation and to be published in a few weeks by J. B. Lippincott & Co., Philadelphia, and D. D. T. Moore, Rochester, N. Y., a new and complete work on Sheep Husbandry, entitled *THE PRACTICAL SHEPHERD*, by the Hon. Henry S. Randall, LL. D., author of "Sheep Husbandry in the South," "Life of Jefferson," "Fine Wool Sheep Husbandry," etc.; also editor of the American Edition of "Yonatt on the Aorse," of which over thirty thousand copies have been sold. The author of the *Practical Shepherd* is well known as the ablest and most reliable writer on sheep husbandry in this country, and the work cannot fail of becoming the standard authority on the subject discussed. It must prove indispensable to every American flock-master who wishes to be thoroughly posted in regard to the history and descriptions of the popular breeds of sheep, their breeding, management, diseases and remedies. The work is intended to give that full and minute practical information on all subjects connected with sheep husbandry, which its author has derived from the direct personal experience of thirty-five years with large flocks, together with that knowledge of different modes and systems which has flowed from a very extensive correspondence during a long period with leading flock-masters in every part of the world. The history, statistics, and what may be termed

the literature of sheep husbandry, have already occupied many foreign and domestic pens—among others that of Dr. Randall. His "Sheep Husbandry in the South," embraced a vast amount of this kind of matter, and no other American work on sheep has been received with more general favor. His report on fine wool husbandry, drawn up in 1862, at the request of the New York Agricultural Society, contained some of the most valuable original facts of the above kinds, comparative statistics, etc. It has been received with high favor in England, and reviewed in the Agricultural periodicals of that country with a degree of respect rarely accorded to foreign writers. The object of the *Practical Shepherd* is different. Great changes and improvements have been made within a few years in the practical processes of sheep husbandry, especially in the United States. In some important particulars they have been essentially revolutionized. No work before the American public brings down information concerning these improvements to the present day. It is the object of the *Practical Shepherd* to do this. It is the author's aim to make it a hand-book, or manual, to which every farmer can readily refer when he wishes to ascertain any facts connected with the management of sheep, under any variety of circumstances, or to ascertain the nature of any diseases which have attacked their flock and their remedies. And such information will not be wrapped in learned circumlocutions or scientific technicalities, but so given that every man can readily understand it. Very special attention will be given to the diseases of sheep and their remedies. Mr. Randall has probably written more on this subject from the results of his own experience and observation than any other American writer, and the general accuracy and soundness of his conclusions have never been questioned.

The first six chapters of *The Practical Shepherd* will be devoted to a full description of the best breeds of sheep in the United States—including the different varieties of the Merino, and the various English mutton breeds, and these will be illustrated generally. These will be followed by chapters on cross-breeding; on breeding in-and-in; on the qualities and points to be sought in sheep; on yolk and its uses; on the theory and practice of breeding; on the adaptation of different breeds to different soils and circumstances; and the profits of wool and mutton production and their prospects in the United States; on the Spring management of sheep; on Summer management, (two chapters); on Fall management; on Winter management, feed, &c., (two chapters); on diseases and their management, (several chapters.)

Many of the most important fixtures, implements, processes, &c., connected with sheep husbandry—such as plans of improved sheep barns and yards, feeding racks, the wool press, the modes of arranging fleeces for the press, the dipping box, instruments for shortening hoofs, permanent metallic marks for sheep, etc., etc.—will be illustrated with cuts and clearly described. The portion of the work which treats of diseases will also be appropriately illustrated.

The publishers promise to make the work creditable in externals—engravings typography, binding, etc.,—and will vie with the author in efforts to render *The Practical Shepherd* in all respects superior to any book on Sheep Husbandry hitherto

published in America. It will make a handsome duodecimo volume of between 300 and 400 pages, and at once supply a long sought desideratum.

### A Lecture on Coal.

We learn from the Glasgow (Scotland) Herald that Professor H. D. Cogers—formerly of Pennsylvania, but now Professor of natural science in the Glasgow University—delivered a lecture before the Geographical Society of that city on the 26th of February, on “Coal, its Distribution, Power and Products.”

There are three chief peculiarities observable in every seam of coal. First, An invariable stratum of fire clay—the fire clay of the Scottish fields—which evidently served as a bed for the roots of trees, and the over lying profuse matter of coal vegetation. Second, The vegetation itself, often accumulated in immense thickness, compressed, macerated and, in its upper portion, stratified and laid even by the action of water. Thirdly, The overlaying shale, or roof of the coal seam, containing, in the soft mud or fine sand of which it has been composed, beautiful impressions of ferns and other plants of the carboniferous age. Another unfailling characteristic of coal seams is their uniform stratification, especially in their upper layers, showing conclusively that the seams have been subjected to the leveling action of water in the vast bays and lagoons in which the vegetable mass first grew and then subsided. In one instance, that of the American coal fields, this mark of uniform stratification extends over an area of 14,000 square miles, thus showing that the physical geography of the period when the coal was formed must have been of a character and upon a scale of which we can now form but a limited conception.

There are different qualities of coal—anthracite, or compressed coke, semi-bituminous and bituminous—in one great coal field in Pennsylvania. Subterranean heat acting in one part upon a vast scale distilled the bituminous matter from coal that was once bituminous, and at the center of greatest heat anthracite coal was produced. Gradually, from this center of heat, coal was obtained, varying from anthracite to qualities containing twenty per cent. and thirty per cent. of bituminous matter, and so on to the unaltered coal containing its full proportions of bitumen. Professor Rogers attributes the petroleum of the oil wells to the distillation of the bituminous coal. He stated that “the subterranean heat which converted the bituminous into anthracite coal had the effect of distilling from that coal the rock oil or petroleum of commerce, which, creeping into the fissures of the strata and impregnating the porous sandstones, remained collected, as it were, in vast underground tanks for the use of the present generation.” The theory of Professor Rogers respecting the sources of American petroleum is different from that of most geologists.

With respect to the power of coal in effecting mechanical work by combustion. when applied to operate an engine through steam pressure, one pound is equal to the full day's work of a man, and three tons of coal is equal to the work of a man for twenty years—almost his entire working life! The productive power of a nation is in direct ratio to the coal at its command. The area of the coal fields of Great Britain is 8,139 square

miles of bituminous coal, and 3,720 square miles of anthracite in Great Britain and Ireland. In France, the coal area is 1,719 square miles of inferior coal; Belgium, 518 square miles; Prussia, 500 square miles; Spain, 3,408 square miles, and Russia scarcely 100 square miles. The British coal fields are able to sustain the national prosperity for ages to come. But the American coal fields embrace an area of no less than 200,000 square miles—about twenty times greater than those of all Europe! “How cheering for the future,” said Professor Rogers, “must be the prospect as it regards the material prosperity and industrial development of those vast coal regions of America which, in the course of Providence, must be intended to bestow happiness and comfort upon untold millions of that comparatively virgin country.”

From the Country Gentleman.

### The Ben Davis Apple.

*Synonyms*—NEW YORK PIPPIN, BALTIMORE RED, ETC.

We have had this popular South Western apple in our nursery for several years. First received from J. Downer & Son of Todd Co., Ky., who say of it—“one of the finest and most beautiful apples known here; originated in this country.”

We have the same from J. A. Carpenter, of Cobden, Ill., as Baltimore Red, under which name he says it is very popular in that section.

After careful examination of fruit and comparison of wood, am satisfied the N. Y. Pippin of Very Aldrich and other Illinois nurserymen is the same.

At the recent meeting of the Ohio Pomological Society, in the discussion on this apple, Dr. Warder remarked that all who had investigated the matter were convinced that the apple called the New York Pippin was of Southern origin. He formerly had some doubts on the question of its identity with Ben Davis of Downing and Southern Kentucky, but was now satisfied it was the same, and that Ben Davis was its true name.

Mr. Charles Downing in a communication to the secretary of the society remarks—“I fruited the New York Pippin and the Ben Davis the past season, and find them identical. Mr. Downer of Kentucky, informs me that the Ben Davis has been known in that section for forty years, (the tree often grown from suckers;) if so, the name Ben Davis should have the preference.”

It will be known and sent out from the nurseries of Ohio as the Ben Davis.

The tree is very hardy, a fine grower in the nursery; makes an orchard tree of large size, with spreading top; an early bearer, fruit quite large, always fair, beautifully striped with dark red on lighter red or yellowish ground. Flesh fine grained, tender, juicy, good. In use all winter.

COLUMBUS, OHIO, May, 1863. A. G. HANFORD.

—The above apple is largely cultivated in Clay, Wabash, Effingham and other counties in this State, and known under several local names. During the past three years we have found it the leading apple on the apple stands at Cairo, after the first of February.

The vigorous growth and great productiveness must make it a favorite.

Mr. Aldrich has verified that it is valuable in the north part of the State. We have not fruited it as yet, but have planted it rather largely.

The tree is a rapid, upright grower, with dark colored shoots.

Ed.

Abstract of the Returns to the Agricultural Department, of the Amount and Condition of the Crops in May, 1863.

	WINTER WHEAT.	SPRING WHEAT.	R5E.	CORN.	OATS.	POTATOES.	SORGHUM.	COTTON.
	Appearance of crop at this date.....	Appearance of crop at this date.....	Appearance of crop at this date.....	Appearance of crop at this date.....	Appearance of crop at this date.....	Appearance of crop at this date.....	Appearance of crop at date.....	Appearance of crop at this date.....
Connecticut .....	10	10	10	11	10	10	.. 8	.. 12
Delaware, .....	9	9	11	12	8	12	16	10
Illinois, .....	9	12	10	11	9	10	15	10
Indiana.....	11	10	10	10	10	10	14	11
Iowa .....	17	12	10	12	11	10	13	10
Kansas.....	18	6	11	10	10	12	15	10
Kentucky.....	9	..	9	8	9	9	..	27
Maine .....	..	11	10	9	10	10	16	10
Maryland .....	10	..	10	10	5	11	..	20
Massachusetts.....	10	11	10	10	10	10	25	10
Michigan.....	11	10	10	10	10	11	19	10
Minnesota.....	13	12	10	13	10	11	11	10
Missouri.....	12	10	11	11	8	10	..	15
New Hampshire.....	10	11	10	9	10	11	..	..
New Jersey.....	11	10	10	11	10	19	12	..
New York.....	11	10	10	10	10	11	11	..
Ohio.....	9	16	9	11	10	11	14	10
Pennsylvania.....	10	10	9	11	0	11	23	15
Rhode Island.....	10	10	10	10	10	11	..	60
Vermont.....	11	10	10	11	11	10	..	..
Wisconsin.....	12	11	10	11	11	10	28	10
Nebraska Territory	15	8	10	8	8	10	9	..
General Average.....	11	10	10½	10½	9½	11	15½	37

The above table presents a very short abstract of the returns to the agricultural Department, of the amount and condition of the crops in May, 1863. A fuller report, embracing other matters, will shortly be issued and sent to our correspondents and the press generally.

This table can be readily understood by all. The number 10 represents an average of the crops, both as to their amount compared with the crops of 1862, and their appearance in May 1863. A number above or below 10, represents as many tenths as it is above or below it. Thus 8 is two-tenths below an average, and 14 is an average above it.

The table is prepared by first taking an average from the returns of each county, and from these an average from each State, as published in the table.

ISAAC NEWTON, *Commissioner.*

WASHINGTON, D. C., June 15, 1863.

## Editor's Table.

BAILHACHE & BAKER - - : PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, JUNE, 1863.

JUNE, gorgeous with flowers, green fields and full robed forests, is a month of natures rejoicing. The skies are soft, the winds zephyr like and nature appears to be hushed in repose. No longer the chill winds of spring drive us indoors—no fires are needed in the dewy morn, the sun pours its first floods of light over the dew glittering fields, whose green vegetation is making rapid growth. The bob-o-link is singing in the meadow, and from the throats of thousands of birds come pleasant music. Could we spare June from the calendar? By no means. For the roses are then brightest, the skies are more bland, the fields have the deepest-green, the wind is hushed, unless chased into madness by some tornado, and all nature is robed in smiles—we cannot spare June.

A DAY IN THE COUNTRY—DEVON STOCK—LEICESTER SHEEP—A LARGE FARM.—Receiving a call from the Western editor of the Rural New Yorker, we concluded to show him some things that were in progress in this county of Champaign. A drive of fourteen miles brought us to the west side of Linn Grove to the farm of William H. Lock, when we found the owner at home busy with his spring work, May 28th. The home farm contains six hundred and forty acres, all of which is enclosed with a good board fence. Bordering on this is over seven hundred acres on which his devons are being herded. This he intends to set to blue grass and fence it in for a pasture.

Mr. Lock is from London county, Canada West, where he has long been known as an importer and breeder of pure Devon stock and Leicester sheep. He has about a hundred head of devons and some seventy of sheep. The remainder of his stock is of our native and crosses of Durham.

His bull, Moses, weighs some 2,000 pounds, after wintering in the open air without more care than our most slovenly farmers give to their stock.

This is by far the best herd of devons that we have seen.

Some of our readers may recollect that at the State Fair held near Chicago, in the autumn of 1861, Mr. Lock had a part of this same stock on exhibition, but on account of not having been entered in the Herd Book were excluded from competition.

The whole herd are in most excellent condition, though having been wintered in the corn field and fully exposed to the sharp prairie winds. Mr. L. prides himself on the idea that his stock is so hardy that sheds and stables are useless for them here, but one or two severe winters will take this conceit out of him. No animal should be allowed to run in the corn field other than on pleasant days, and in severe weather should be well sheltered. He will find that the prairie winds contain no fattening property, and though his stock may be and doubtless is more hardy than the crosses of the Durham, yet they cannot stand the exposure with impunity.

We saw several yoke of his devon oxen breaking prairie, but could not discover that they stood the heat any better than the native and probably not so well. The truth is, oxen are becoming less and less used with us, and we doubt if it is any object to pay much attention to this point in stock raising. For early beef this break of stock should attract more attention, and of its value to cross with our native stock there can be no doubt. Most of our stock growers prefer the durham, but our friend Lock is positive that he will take this fancy out of them.

We have not the time nor space in this article to discuss the merits of the two breeds, but take occasion to call the attention of stock growers to this magnificent herd of Devon.

They can be found some two miles south of Philo on the Great Western R. R., or eight miles east of Tolona.

### LEICESTER SHEEP.

Mr. Lock has a flock of some seventy head of these sheep, among them several imported from England. It appears to us that this breed is well adapted to this country, where we have plenty of feed and where mutton commands a good price. For the small farmer who would wish to keep from twenty to fifty sheep for both mutton and wool, this class of sheep are the most desirable. We use too small an amount of mutton and too much pork. With a small flock of mutton sheep, we could have a good supply of cheap and valuable meat. The demand for long wool will doubtless a change in this respect, when the South Down and Leistershire will become more popular.

In this part of the county is yet large tracts of prairie unfenced, mostly owned by the Illinois Central Railroad Company. The land is rolling, well watered and of great value for farming purposes. The want of timber has been the drawback to settlement, but the cheap coal which every farmer can haul from the mines with his own team will soon remove this objection, when this part of the country will be among the most valuable.



From Mr. Lock's to the

#### SULLIVANT FARM

Is a distance of six miles. This we had been told, and we struck out for the trail that led in that direction—over the wild prairies, with farm houses miles to the north of us, and a new one perched on a high swell of the prairie just in our line of travel. This we reached just as the shades of night began to close in and a thunder shower was gathering in our front.

To our inquiry, Have we lost the way to the Sullivan farm? "No, just at the foot of yonder freshly broken prairie is the west line of the farm, and this trail you have followed for the last hour and a half will take you to the house some five miles distant, two miles of which will be within the inclosed fields."

Thus introduced to the "great farm," we started onward, got a good soaking from the shower, and arrived at the hospitable home of M. L. Sullivan, at a late hour in the evening, the rain having made the track so heavy that the horse was brought to a slow walk.

Large farms are generally found wanting in all those small comforts that go to make a home, but here is a true home—not full of the elegancies of city life, but of the thousand realities that give life its real zest. The mind that grasps great results can see to the details of the small ones, and thus keep the whole machinery in harmonious order. Even a glance under the murky clouds of night, gave conclusive evidence that a pleasant home could be carved out of the wide prairie when happy contentment had found a resting place.

Mr. S. is a practical farmer, and we should judge a profitable one.

To get such a large farm under culture is an immense undertaking, and often once under way, to make it profitable, requires the utmost vigilance.

As a general thing the large farms have not been a success, and many of them have been subdivided and sold, and even now, with the usual mixed husbandry we would not recommend the plan, but would rather rent out in small lots to individual farmers to work on shares, but Mr. S. is making this a stock farm by seeding down his grain fields, and will find it profitable in the end.

Our visit being only a neighborly one and the weather rainy, we could not if we felt disposed to do so, give more than the outline of his mode of farming; suffice it to say, however, that system, order and thorough culture are to be seen on every hand. To put in two thousand acres of crops is no small spring work for one man to look after.

We obtained many valuable hints in the economy of labor that will be of value to us. An im-

mense number of agricultural implements have been tried from time to time, and the experience of these alone would be worth a thorough investigation. The use of the roller, the double harrow, by which one man with two span of horses will harrow thirty acres a day—of grain drills, cultivators, mowers and threshers is truly interesting.

Some day we intend to revert to this topic for the purpose of showing up the history of invention as the collection is almost as complete as that of the Patent office, with this difference, that they have there the model but here the full grown machine.

Of course the most of this machinery is of no value and has cost Mr. S. time to verify it, the owner in most cases sending the implement for trial at his own expense.

Underdraining is one of the things highly recommended by Mr. S., and he holds the mole ditcher in high esteem.

The large amount of hay is unloaded with hay pitchers, which are applied to high derricks, not only save a large amount of labor, but enables the stacker to secure the hay in much better condition as the stacks will be higher and better topped off.

Farmer Sullivan not only has a large farm, but a pleasant home which we cannot say of many other large farms that we visited.

---

**EVERGREEN SWEET CORN.**—We would urge the planting of this most excellent corn more liberally than has been the practice. It can be planted late into July at intervals of ten days, when a succession of roasting ears can be had until frost, and for weeks after if cut and shocked before the frost has injured it. It is a very healthy food and should be on the table daily. After its season commences, many people complain that the use of green corn induces the summer complaint, but we have used it years in our family, daily during its season, without any effects of the kind. That occasional meals of green corn may be guilty of the charge we can readily believe, for children are so fond of it that they are apt to gorge themselves, whereas with its daily use this will not be the case. Plant the sweet corn.

---

**BREAKING PRAIRIE.**—The season for breaking prairie is now at hand, and it may not be out of place to say a word or two in regard to it, though we repeat what has been so often said. Unpastured raw prairie should be broken between the middle of May and first of July. If broken at any other time in the ordinary manner it



seldom rots well; we say seldom, for if followed by a long continued drouth after breaking between the first of May and Middle of August the roots will die and of course leave the soil in good condition, but this is the exception not the rule. Prairie that has been pastured and on which the prairie sod has become partially decomposed, can be broken at almost any season and will do well. On this good crops of corn can be grown the first seasons even if broken in April. We have had excellent success in March, with a double Michigan plow; but in this case the upper plow cut only about one and a half inches deep, curling the turf over like a scroll, leaving a large air space beneath.

In all cases care should be taken to cut the turf as thin as possible, for on this, success, in a great measure, depends. One of our neighbors broke up ten acres last month for corn, some five inches deep, he wanted loose earth to cover the corn with. Had he plowed thin, say two inches, and with an axe cut through the turf and dropped the corn in the cut, his prospect for a crop of sod corn would have been much better, as it is, we fear he will have little corn from his ten acres.

Three horses or mules make the best breaking team. One man can handle them and hold the plow, and easily average twelve acres a week. A breaking plow should have an extra share, so that the team need not stop to have it sharpened, this will save much time. A very important item in breaking is to keep the plow sharp. A plow cutting sixteen inches when sharp will show a draft of about four hundred pounds, when rather dull six hundred, and if very dull eight, a very important difference in horse flesh. No plow should be run over a mile without filing, and always looked after if it should strike a stone or run through a gravelly knoll. By having an extra share, much labor can be saved in filing, by passing the work over to the blacksmith. With a good plow and in good order, prairie breaking is no great task.

---

**STRAWBERRY BEDS.**—When the season for this fruit is over, the first thing to be done is to spade up alternate strips and to weed out the plants. A good way to do this is to take a board, fourteen to sixteen inches wide, lay it on the edge of the bed, covering the first strip of plants that are to be retained; at the edge of this, turn under two widths of the spade, cutting down close to the edge of the board with the spade, so as to make the lines straight and workmanlike. When this is complete, lay the board on the next strip of plants, and in this way until the whole is completed. In the

next place take a steel rake and thoroughly pulverize and rake smooth the spaded slips, and take all the weeds out from among the old plants. This is all the culture we give our beds up to this time. We never disturb them after the spring opens, until the fruit is ripe, when it is gathered. The weeding of the beds we think injurious to the growing plant. It is seldom that we need to dress over the beds, as the plants take such a possession of the soil that the weeds have little chance to make a lodgment. White clover, blue grass and sorrel are the worst to contend with. After the ground is frozen in the winter a light covering of litter with some well rotted manure completes the season's work. Thus reader you have our secret of strawberry culture, by which we always have an abundant supply of this delicious and healthgiving fruit.

The whole process is simple, and easy to be performed, and will not make the fruit on the vines cost over fifty cents a bushel. The picking is worth two and a half to three cents a quart additional. This makes the total cost less than six cents a quart, leaving a very fair profit at present prices to such of the junior members of the farmer's family who have the enterprise and good taste to attend to it.

We are surprised as year after year rolls on, that, the farmers' tables are not better supplied with this fruit in its season. The mystery that was supposed to surround the culture of the strawberry is now dispelled, and the process so simple that failure is out of the question. Of course the quantity and quality will vary according to the season, but of failure there need be no apprehension. It has not been our aim to grow this fruit for market, but we generally sell enough to pay the expense of the whole crop. The best time to set out new beds is in May, but it can be done during a wet time during July and August. But these new beds must be well protected by a covering of straw or other coarse litter.

---

**TREE COTTON.**—We are in receipt of a quantity of the seeds of the tree cotton from Lewis Ellsworth, Ex-President of State Agricultural Society, who had it from "a friend of his, who received it from the captain of a vessel who brought it to this country. Thus it will be seen that we may possibly have the genuine seed. It has been planted a few days, but has not as yet made its appearance above ground. Should it grow we shall give it a good opportunity to become famous, both out of doors and under glass, of the former we have no faith.

**COTTON CROP.**—We planted a small field of cotton May 6th, of seed from Commissioner of Agriculture, since that time we have had no rain, and the weather has been dry and cold, and yet we have a good stand of plants, and have no doubt of growing cotton." We hear good accounts from the planting of this spring, and shall be disappointed if the crop does not furnish enough to place Illinois among the cotton growing States.

**SWEET POTATOES** should now be planted if not already done—make the hills large, or if in ridges, draw them up round and full with a hoe. The plants should be set about a foot and a half apart, one in a place. Dry weather is the best in which to set the plant; set with a dibble or stick, if the dry earth fills in around the plant no matter, but follow at once with the watering pot and give each plant from a pint to a quart of water, but do not wet the leaves if you can avoid it.

**LAND SALES OF ILLINOIS CENTRAL R. R.**—The following is the monthly statement for April, 1863, of the business of the Land Department of this road:

	<i>Acres.</i>	<i>Amount.</i>
Construction lands sold.....	7,828.78	\$87,319 47
Interest fund lands sold.....	3,689.60	33,860 00
Free lands sold.....	2,997.54	35,945 71
<b>Total sales April, 1863,.....</b>	<b>14,515.92</b>	<b>\$157,125 18</b>
Add town lot sales.....		1,744 30
<b>Total of all.....</b>		<b>\$158,869 48</b>
Sold since Jan. 1, 1863.....	63,298.70	\$671,788 97
Sold previously (net sales).....	1,198,326.00	15,139,473 89
<b>Total.....</b>	<b>1,261,624.70</b>	<b>\$15,811,262 86</b>
Construction bonds cancelled previous to March 31, 1863,.....		\$2,354,400 00
Cash collected in April.....		122,385 41

Since the public have taken to the funding of Government securities the sales of Western lands have fallen off rapidly, and at this time there is little inquiry for land, and these confined to actual settlers. Another year must change this, for the foregoing interest is now the best paying and of course will be sought for. With corn at 35 to 40 cents a bushel at the depots, more land will be put under culture. Wages are high, it is true, but then with the labor saving implements much can be accomplished.

**HOVEY'S SEED LIST.**—This list reached us too late for a notice last month. Hovey is doing a large business in the way of garden, flower and field seeds, and those having seeds to either sell or buy will do well to consult him. See his card in another part of the FARMER.

**THE GARDEN.**—This is the family medicine chest, and will do more to ward off and cure disease than all the doctors in the country, that is if well filled with small fruits and vegetables. The farmer who cannot find time to take care of the garden will some day be obliged to find time to go after *Doctor Bolus*, spend much of his time in the sick room and foot some unpleasantly large bills for very unpleasant medicine. Our advice is if you wish to economise time do not neglect the garden. Many persons pretend to think that we cannot grow good vegetables, which is a fact in three fourths of the gardens in the State, and we give these sagacious individuals the benefit of our evidence in their favor—they can't grow we know very well—for they are not cultivated, and won't grow without. We leave this class of farmers to take calomel and quinine, while those who take care of their gardens have good health and believe in food before physic.

**J. M. REDMOND & SON.**—The card of these gentlemen will be found in our advertising department. Mr. Redmond has for a long time been connected with the Land Department of the Illinois Central Railroad, first as Treasurer and more subsequently as Commissioner, in which capacity he has earned a most excellent reputation for promptness, and fidelity in the discharge of his duties. He is now devoting time exclusively to the commission business, and we take great pleasure in recommending shipments to them, and can assure those entrusting business to their care that we have no doubt that the most ample satisfaction will be given.

**RURAL REGISTER.**—This monthly journal of agriculture comes to us from Baltimore, and is ably edited. At the beginning of the war the old American Farmer took the traitor side and soon went under, while this loyal sheet has stood the brunt of the storm and comes out useful and honored.

**THE KIRKBRIDGE WHITE.**—In the last number, on page 134, this is erroneously called the Kirkbridge Winter apple—a very important difference, as it is a summer fruit.

**THE WEATHER.**—At this writing, May 27th, the month has been dry and cold. Farmers complain of the bad state of the soil, as it breaks up very cloddy; large numbers are waiting for rain to soften the clods before planting, but we prefer to give them roller practice and plant as we plow, and our corn is coming up well, notwithstanding the dryness of the soil.

CONTRIBUTIONS FOR SICK AND WOUNDED ILLINOIS SOLDIERS.

OFFICE OF STATE SANITARY BUREAU, }  
SPRINGFIELD, ILL., June 30, 1863. }

The following additional contributions for sick and wounded soldiers have been received at this office, since June 23d, inst. :

Previously reported.....	\$16,933 61
Union League 462, G. Stevens.....	22 30
Mulberry Grove, M. W. Powell, for citizens.....	23 75
Huntsville, G. W. Aiken, for citizens.....	9 00
Newark, Kendall co., A. Cook, for citizens....	200 00
West Salem, Edwards co., U. L. Mays, for citizens	87 45
Piasa, Madison co., J. W. Johnson, for citizens...	10 30
Princeton Congregational Church, T. W. Waller..	27 00
Aurora, T. S. Hatch, for citizens.....	56 00
Biggsville, Henderson co., A. Small, for citizens..	21 00
Chesterfield, Henderson co., E. Upham, for citi- zens (additional).....	11 00
Shabona Grove, C. Bailey, for citizens.....	15 00
An Unconditional Union Man of Sangamon co. .	10 00
Elm Point, Bond co., A. H. McFain, for citizens.	32 75
Brighton, E. H. Signor, for citizens (additional)..	4 50
Anna, Union co., E. M. Wilson, for citizens.....	12 00
Ogle Station, Hy. Bly, for citizens.....	19 75
Beaver Grove, A. V. Gard, for citizens.....	15 75
Raccoon, Marion co., S. M. Hays, for citizens....	19 00
Jerseyville M. E. Church, J. Van Cleve.....	18 10
Okaw, W. M. Pierce, for citizens.....	43 00
Pleasant Ridge German Lutheran Church, Madi- son county.....	11 00
South Macon, Macon co., W. C. Webb, for citizens	25 00
Dover, Bureau co., S. M. Pratt, for citizens.....	91 40
Florid, Putnam county, A. G. Meacham, for citi- zens (additional).....	2 75
Cedar Fork, Knox co., J. F. Short, Galesburg..	25 00
Melugins Grove, Lee co., J. K. Robinson, for citi- zens.....	43 00
G. W. Walker, for citizens.....	81 00
Elm Point Soldiers Aid Society.....	2 90
Tiskilwa, R. Hunter, for citizens.....	95 00
Ashkum, Iroquois co., H. B. Stevens, for citizens.	26 25
Virden, Rev. W. S. Tarbutt, for citizens.....	173 25
Salem, Marion co., J. R. Meldrum, for citizens....	89 25
Bureau Valley Council U. L., T. W. Waller, Prince- ton.....	18 10
Roseville, Warren co., A. H. Tracy, for citizens..	27 85
Grayville,* J. E. Clark, for citizens.....	68 80
La Prairie, J. J. Graham, for citizens.....	7 00
Shawneetown, Col. F. Rhodes, for ladies.....	250 00
Ophir, La Salle co., C. P. Eastman, for citizens...	103 00

Total amount received during month of June..\$18,691 81  
JOHN WILLIAMS,  
Com. Gen. in charge Sanitary Bureau.

Medals of Honor for Soldiers.

[OFFICIAL.]

WAR DEPT., ADJT. GENERAL'S OFFICE, }  
WASHINGTON, June 29, 1863. }

GENERAL ORDER, No. 195.—The Adjutant General will provide an appropriate medal of honor, for the troops who, after the expiration of their terms, have offered their services to the Government in the present emergency; and also for the volunteer troops from other States that have volunteered their service, in the States of Pennsylvania and Maryland. By order of the Secretary of War.

E. D. TOWNSEND,  
Assistant Adjutant General.

—Lawyers' mouths are like turnpike gates—  
never open except for pay.

—A man's stomach is his weak part. The  
weapons to subdue him the most readily are  
found in the kitchen.

—“My dearest Maria,” wrote a recently-mar-  
ried husband to his wife. She wrote back,  
“Dearest, let me correct either your grammar  
or your morals. You address me, “My dearest  
Maria.” Am I to suppose you have other dear  
Marias?”

A GOOD REPORTEE.—One of a party. of gen-  
tlemen visiting the colored regiment, near  
Georgetown, yesterday, chanced to say playfully,  
“There is a good many woolly heads about  
here.”

“Yes,” said one of the darkeys, “plenty of  
woolly heads, but no copperheads.”

“John,” said a doting parent to her gorman-  
dizing son, “do you really think you can eat the  
whole of that pudding with impunity?”

“I don't know, ma,” replied young hopeful,  
“but I guess I can with a spoon.”

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## Advertisements.

**BUY THE BEST!—**

**IT IS THE CHEAPEST IN THE END!**



The Railway Horse Power which took the

**FIRST PREMIUM**

AT THE

## New York State Fairs of 1861 & 1862.

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others! This, they believe, cannot be said of any other Power exhibited at an equal number of Fairs.

**COMBINED THRESHERS AND CLEANERS,**

**Threshers, Separators, Wood Saws, &c.**

All of the best in market.

These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of horses, being only about  $1\frac{3}{4}$  miles per hour when doing a good fair business, which is about 300 to 500 bushels of oats per day, or half that quantity of wheat or rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business, without waste or clogging, than any other two horse cleaner before the public.

For price and description send for circular, and satisfy yourself before purchasing. Address

R. & M. HARDER,

je2m\*

Cobleskill, Schoharie Co., N. Y.

## Sanford & Mallory's Flax and Hemp Machines.

These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address

NELSON STILLMAN,  
General Agent, Chicago, Ill.

P. O. Box 5823.

May 1'63. ly

## MALTESE JACKS.

TWO just imported from the Island of Malta, selected with great care for breeding purposes. They are three years old, 14 and 15 $\frac{1}{2}$  hands high.

Address,

S. B. CARUANA,  
71 Pine street.  
E. C. ESTES,  
73 Hudson street.

New York, May 14.1m

## EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5,00

NORWAY SPRUCE, three years  
old, six to nine inches, \$8,00

SCOTCH PINE, two years old,  
three to five inches, \$7,00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARVITÆ, &c., &c.,  
of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the  
best varieties for the West.

A large stock of RED DUTCH CURRANTS, the  
best for market, two to three years old, at half the  
usual rates.

STANDARD AND DWARF PEARS, of well  
tested varieties, together with a good assortment of  
Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
WAUKEGAN, ILL.

ROBT. DOUGLAS.  
tf

## TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD. \$55 per 1,000.

A few thousand of bearing age, of large size at  
\$75 per 1,000.

These will produce a good crop the second year.

HARTFORD PROLIFIC, \$10 per 1,00, or  
ten for a dollar.

REBECCA, \$10 per 100.

DIANA, \$10 per 100.

The above will be well packed,  
to go any distance.

TERMS—Cash, or approved bank paper of  
short date.

JAMES SMITH.

DES MOINES IOWA, Jan. 1, 1863.

CANE MILLS.

“CLARK SORGO MACHINE CO.,”

122 Main St., Cincinnati, O.

WM. H. CLARK, Pres.t.

H. NORTON, Sec.

We offer to the public seven different series of mills, embodying in their construction the best seven improvements prior to 1863. Our New series, “THE VICTOR,” for 1863, is upon an entirely new plan of construction, combining the experience of years with the suggestions of hundreds of the best operators, and we feel assured will accomplish more with less power than any other power than any other before the public.

SEND FOR “SORGO HAND BOOK.”

COOK’S SUGAR EVAPORATOR.

Speed.	Has taken the First Premium wherever exhibited, including twenty-five National and State Fairs.
Durability.	Is the most economical in use, is the cheapest (pan) in first cost, square surface considered, makes better syrup and more of it in a day than any other ever devised. No Refinery needed.
Execution.	Cost of evaporation by Gates Steam Pan by Mr Gates’ estimate—3.1 cents per gallon. Cost by Cook’s Plantation Pan, only 2 cents per gallon.
Convenience.	Other Manufacturers acknowledge its excellence.
Capacity.	“It is the only one that has obtained any notoriety for making syrup.”—C. & J. Cooper Mt. Vernon, O.
Cheapness.	Send in orders early, as hundreds were disappointed last fall. “Sorgo Hand Book sent free on application.
Excellence.	

BLYMYRE, BATES & DAY.

MANSFIELD, O.

H H. KOON, Springfield, Ill.,

June 1, 1863.

Agent.



## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:

1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.


## BURSON'S AMERICAN GRAIN BINDER.


THIS IMPORTANT LABOR-SAVING IMPLEMENT IS NOW BEING BUILT FOR THE FOURTH  
HARVEST.


During the last three Harvests we have worked it upon nearly all the different styles of Reapers in use, in all kinds of grain, and under every variety of circumstances in which such an implement could be placed and have never failed to demonstrate that

ONE MAN COULD BIND THE REAPER SWATH AS FAST AS CUT.

### ITS RECEPTION AT THE DIXON TRIAL.

 The eager, pressing throng, gave ample ample reverberating evidence of their approbation, and anything I can do to further your worthy efforts, shall be willingly done.—*Extract from a private letter to us from the Hon. H. W. VanEpps, President of the L. S. A. S.*

 It drew the attention from everything else, and when it first started into the grain the crowd could not be restrained from rushing after and almost over it.—*From the Prairie Farmer.*

 The great feature of the day, which never failed to draw the crowd, was the Grain Binder of W. W. Burson.—*Chicago Tribune.*

MANUFACTURED FOR THE PROPRIETORS BY

## EMERSON & COMPANY,

FAVORABLY KNOWN THROUGHOUT THE WEST AS THE MANUFACTURERS OF THE

JOHN H. MANNY REAPER,

ROCKFORD.....ILLINOIS.


THE IMPROVEMENTS FOR 1863 HAVE ADDED 50 PER CENT. TO THE CAPACITY OF THE  
BINDER!

For the benefit of those who used or saw in use our Binder last harvest, we specify,

1st. The arm is lengthened, reaching from 6 to 8 inches further over the platform.

2d. The improved movement by which the wire is held nearly perpendicular.

3d. A SELF ACTING REEL which draws the wire tightly around the sheaf of any diameter, from three to thirteen inches, without the aid of the hand.

 For further particulars address

W. W. & H. M. BURSON,

ROCKFORD, ILLINOIS.

N. B.—Those wishing a new Reaper and Binder should address EMERSON & CO. direct, as they are licensed to attach and sell upon their Reaper.

## GENUINE TREE COTTON SEED.

A limited quantity of the above seed can now be obtained if applied for soon, of

**EDWARD TATNALL, Jr.,**

Brandywine Nurseries,  
WILMINGTON, - DELAWARE.

This seed was procured at considerable expense by William Ferris, of the above city, from the mountain regions of South America, having been conveyed thence by mule, "seven days journey" to Guayaquil, where this gentleman resided nearly three years, and made himself acquainted with the fact that this cotton thrives, and is cultivated on the elevated lands of the Andes, of which it is a native. His object was to introduce it into our Northern and Western States, believing if it would stand their climate (and where it now grows it is frequently covered with snow and ice) it would prove a source of great interest and profit to the people of those States.

As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State.

Apr 2m

## WANTED. KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$50. Weight 45 pound. Freight from 50 cents to \$1.50. Send for circular and samples, (send stamps.)

BRANSON & ELLIOT,  
General Agents,  
120 Lake street, Chicago, Ill.

Apr '63 ly

## H O V E Y ' S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Nov 1862 No. 194, Lake st., Chicago Ill.

## BLOOMINGTON NURSERY BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees  
200 NAMED SORTS TULIPS, ALSO HYACINTHS  
Crocus, and a general assortment of Bulbs  
and Flower Roots for Fall and Spring planting.  
Nursery stock, Evergreens, Greenhouse and garden  
plants—all at wholesale and retail at lowest cash  
rates.



For particulars see Catalogues or address subscriber.  
F. K. PHENIX.

Bloomington, Ill., Aug. 1, 1859.

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

Address, M. L. DUNLAP,  
Champaign.

March 1, 1863.tf

## GEORGE S. THOMPSON,

Late of Com. Gen.'s Office,

Attorney for U. S. Military Claims,

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House  
of Messrs. N. H. Ridgely & Co.

Having had much experience in prosecuting claims against the United States, particular attention is given to Recruiting Bills made by officers and men of volunteer companies and regiments, for subsisting, and, collecting, organizing and transporting troops prior to muster into service: Back Pay due Resigned Officers; Back Pay due Discharged Soldiers; Pay due Deceased Officers, their Widows or Heirs; Bounty and Pay due Heirs of Deceased Soldiers; Pensions due Deceased Soldiers' Widows and Minor Heirs; Pensions due Invalid Soldiers; Pay for Horses lost, killed or died in the United States' service; All Claims growing out of the Present War.

Pensions collected semi-annually, from the Agent of the United States at Springfield.

Any kind of claims for service, or for property destroyed, stores or property sold officers of the United States.

Would respectfully refer to Messrs. John Williams & Co., Bankers; J. C. Bunn, Esq., Bunker; Capt. C. B. Watson, U. S. Mustering Officer; Lieut. Geo. W. Hill, U. S. Mustering Officer; Major C. S. Hempstead, U. S. Paymaster; Capt. Ninan W. Edwards, U. S. Commissary; Captain W. H. Bailbache, U. S. Quartermaster; Col. P. Morrison, 8th U. S. Infantry, Superintendent Recruiting for Regiments of Illinois, Springfield, Ill. Major J. G. Fonda, 12th Ill. Cavalry, Commandant at Camp Butler.

August, 1862.tf



**FAIRBANKS'**  
STANDARD  
**S C A L E S**  
OF ALL KINDS.

Also, Warehouse Trucks, Letter Presses, &c.

**FAIRBANKS, GREENLEAF & CO.**  
172 LAKE STREET, CHICAGO,

Sold in Springfield by

**E. B. PEASE.**  
Be careful and buy only the genuine. June 1-ly

# The Illinois Farmer,

A MONTHLY JOURNAL OF

## AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to getter up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside

The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign Illinois.

All business letters are to be directed to the publishers, Springfield.

### TERMS OF ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	8	\$20	\$35	\$50
Half a page or one " .....	5	12	20	30
One fourth page or half column..	3	7	12	18
One eighth or one fourth " ..	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00
Ten cents a line for less than a square each insertion.				

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

We have put the price of advertising within reach of all. It will enable those who like to freely advertise their goods, to do so at a cheap rate,

Terms, cash. Yearly advertisers will pay semi-annually, and all transient advertisements must be accompanied with the cash to insure insertion.

BAILHACHE & BAKER, Publishers,  
Springfield, Ills.

## THE ILLINOIS STATE JOURNAL

IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

### TERMS:

One copy one year.....	\$2 09
Three copies one year..	5 00
Six " " .....	7 50
Ten " " .....	12 00
Twenty " " .....	20 00

Payable always in advance. Persons sending clubs of ten upwards shall be entitled to an extra copy.

Address BAILHACHE & BAKER,  
Springfield, Illinois.

### APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
1sq3m Pulaski, Oswego co., N. Y.

### A GOOD INVESTMENT.

ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

GENERAL AGRICULTURE,  
STOCK RAISING,  
HORTICULTURE and POMOLOGY,  
And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

### LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

### FORM OF PAPER.

The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

### CONTENTS.

About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

### A NEW VOLUME

Commencing January 1st, 1863, and the present time affords the best time to form clubs for the year.

One copy one year.....	\$2 00
Two copies one year.....	3 00

Larger clubs furnished at liberal rates, or premiums given where clubs of six or more are sent at \$1 50 each.

Specimen copies and show bills sent to any one who desires them for examination or the purpose of raising a club.

For sale by news dealers generally.

For samples or other information concerning the paper, address

EMERY & CO., Chicago, Ill.

# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., JULY, 1863.

NO. 7.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE &amp; BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

✂ EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### State Horticultural Fair.

This Fair is to be held this year at Rockford, Sept. 8th, 9th, 10th and 11th. The premium list is ready, and can be had of H. P. Kimball, Rockford, and probably of most of the officers. The list is a liberal one, and cannot fail to draw out a large number of competitors.

This Society has become one of the most important in the State, and its usefulness is apparent to the most obtuse. It does not in the least interfere with the State Agricultural Society, which offers its usual list of premiums in the department of horticulture.

That the Fair will be the best ever held in the State we have the guarantee

of some of the most enterprising florists and pomologists in the North West.

It will be recollected that the gardeners of Rockford, at the last Fair held in Chicago, outvied their great city rivals, and carried off most of the premiums, in fact the Chicago gardeners did little else but growl and stand in the back ground, while the Rockford gardeners took the prizes and nearly all the honors. The stigma thus cast on the floral skill of Chicago will not soon be wiped out. If the gardeners of that city have a grain of pride, they will invade Rockford in force during fair week, and try to retrieve their lost honor. If these men think that because Chicago is the commercial emporium of the West, they need only grow their plants and customers will come to them as a matter of course, they may sometime wake up to the fact that they are a bit mistaken. Rockford is favorably connected by rail with the North West, and her central position will make her a troublesome competitor with the Garden City.

The fine prospect of fruit in the north part of the State will give a new impulse to the show, and we have no doubt that the tables will groan with the rich spoils of the orchard.

The Society has ignored all shams and mysteries. No committees will be blindfolded, the working points and scale of values will be open to inspection.



tion, and the members of the press from all parts of the country will be kindly received, and every possible facility given them. The officers are not afraid that these gentlemen will spoil their report, by giving their readers a full account of the doings.

This time Egypt will stand a chance to be beaten, and we give them warning in time, that unless they put forward their best efforts, they will be second best.

But few are aware of the great progress that has been made in the several departments of fruit, vegetable and floral culture in the north part of the State within the past three or four years. The orchards nearly ruined nine years ago have been renewed, and the new ones are now coming into bearing, and those that did survive have been made more valuable by better care. We say it with pride, that if the north part of the State but come up to the show in their might, they will open the eyes of their Egyptian friends. We know the north is not so natural a fruit country, but this is offset by shelter, by good culture and rich manures.

The premium list is also arranged that in some departments of fruits that the Northern and Southern sections can compare separately.

All those interested should send for a premium list.

This exhibition will be valuable on another account, to settle on the true name of fruits.

Dr. Warder is expected to be present, and evening sessions will also be held for the discussion of such matters as may be of value.

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#### German Newspapers.

Very many of our farmers hire Ger-

man help, both in the house and the field.

Germans are social people and like company. They are also great readers, and generally like to spend their leisure time in reading. Where reading is not to be had, of course, they must make the best of it, and Sundays and other leisure spells are improved in visiting about from one farm to another, or in going to the village grog-shops or beer saloons.

A good preventative to this is to take a German newspaper for their especial benefit, you will find it to pay in the end, as you will find your hands where they should be, ready to work, instead of strolling about the neighborhood. For the last dozen years we have pursued this course with both pleasure and profit. The Illinois Staats Zeitung, of Chicago, is at the head of the German press in the West, and well worthy your confidence. Try it for six months and you will be convinced of the truth of our statements.

Look to your hired men and see that they at least have plenty of reading, if it will not pay for yourself and family, it will pay well to get it for them. One good steady hand who is always in his place, is worth two of your roving ones.

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#### Tree Cotton.

The tree-cotton seed sent us by Lewis Ellsworth, Esq., Ex-Pres. of our State Agricultural Society, came up remarkably well, and is now eight inches high. The plants begin to develop their wooly character, though the leaves have the general appearance of the common annual cotton. A part of it will be planted in the open ground, and a part retained in the green house.

### A Look at the War.

On the morning of June 2d we took a seat in the train going south, with a company of surgeons and nurses bound for the battlefield of Vicksburg, in which we past field and open prairie.

The crops are backward, and in most cases suffering for want of rain. Cotton is being damaged by the cut worm; tobacco cannot be transplanted on account of the drouth, and the fields everywhere present a cloddy appearance. The fruit crop throughout Egypt is light, notwithstanding the brilliant prospect some weeks since, the young fruit has continued to fall off.

The strawberry season has been a moderate one at Cobden and Jonesboro.

We stopped at Cairo nearly two days waiting the steamer from St. Louis, it having got aground on the way down. When it came it was loaded almost to its full extent, and no disposition on the part of the Captain to take on the Sanitary goods as per contract with the State. It is easily seen that his sympathies are far away in Dixie, and that he reluctantly carries out the contract of the owners. With a strong effort a third of the ice is loaded, two hundred out of thirteen hundred bushels of potatoes, and a part of the other sanitary stores are placed on board, and even this is due to the exertions of Col. Hough, in charge of the party, C. T. Chase the agent in charge of the stores, and Mr. Yocumb the quartermaster. The local sanitary agent was of as much value as a wooden image, being more ornamental than useful. It was promised that the remaining goods should follow on the morrow, but we unhesitatingly predicted, that with such an

agent, the thing would not be done in a month. The Sanitary Commission should at once put some business man in charge at this point, and permit young fussy to take a summer school of small youths, which would doubtless better meet his capacity.

If there was ever a set of inveterate liars worthy of sharp punishment it is these river boatmen. We doubt if they would tell the truth on any occasion, more especially the time of leaving port. The boat was loaded at 2 a. m., but as a few more passengers might be had from the morning train, we laid at the levee until near seven o'clock.

The City of Alton is a large boat, draws when full loaded, as now, about eight feet of water. Among her cargo, are one hundred and fifty tons of fixed ammunition, this is piled up like boxes of dry goods, as though it could not be exploded until sent after the rebels. The cabin and deck are full of passengers, the members of the Sanitary Commission numbering eighty-five, making in all some three hundred persons, besides the crew. This at once presented a bar to any dreams of a pleasant, quiet trip down the river, allowing the weary surgeons and nurses to recover from the fatigues of the railroad trip and two days' starvation at Cairo. We claim to be a philosopher, and endure what we cannot cure, but of one thing we are certain, to not be caught the second time. And in this connection we would recommend to Gov. Yates or Gen. Fuller when they again charter a steamer, to send some person in charge of the party who will see that the State is not swindled out of her rights, and that its employees have at least equal treatment with prisoners, dead heads and other passengers. The clerk of

the boat, Capt. Hawley, we believe, is a good Union man, but unfortunately he left us at Memphis.

At Island No. 10 is a large army of contrabands, women and children. Here the baggage of passengers and the cargo is examined for contraband goods, but on this occasion none was found.

The plantations for some distance down the river on the Tennessee side presents some signs of life, and we see several fields of corn, but it is evident that most of the male inhabitants are away from home. After we pass Memphis we see scarcely an acre of crops, all is desolation. Large numbers of plantations have been stripped of fences and farm buildings, as the wide fields and standing chimneys attest. Now and then a village has been swept away by the red hand of war, a just punishment for aiding in the rebellion.

The high water has during the past two years cut away the levee in many places, and where a plantation stands unharmed by fire, there are no willing hands to cultivate the teeming soil.

At last we enter the Yazoo and steam up to the rear of Vicksburg, and land at Chickasaw crossing, the present depot of supplies for the army of Gen. Grant. This is also the point at which Gen. Sherman landed last December and attempted to take the city by way of the Chickasaw Bayou, but met with a sad reverse. To us the battle field was full of interest, for here fell many of our old time friends; among them Gen. Wyman. The enemy had a strong hold, from which no ordinary force could drive him. As we rode over the ground, and saw one strong point after another, we could come to no other conclusion than that it was folly to

attack it, and Gen. Sherman might be thankful to get off with his shattered troops. From the Yazoo, a flat runs along the base of the hills some ten miles to Vicksburg. As we ride through the thick dust towards the camps, we hear the booming of cannon and the explosion of the huge shells as they go screaming over the doomed city and land among the rebel works. But we are not going to inflict a long war letter on our readers, as the city Dailies can do that. Suffice it to say that we spent a week in and about the point, had our fill of war, having been in nearly all the approaches and rifle pits and within forty feet of the rebel works, and become quite familiar with the whizzing of unerring minnies.

The country around the city for some miles where we visited is desolated. The corn had just been planted when our army came in on the 18th of May, but not a row of it has been plowed, and the fences are fast disappearing, as the soldiers make free use of them for fuel. A large share of the buildings have been burned, and those left used for hospitals or headquarters.

We found the army in good health and fine spirits. The officers very courteous, without that stiffness apparent a year ago. The truth is, a close relationship between officers and men, is apparent, doubtless occasioned by a pretty thorough weeding out.


On our return trip we had a goodly load of wounded and sick—had rather an exciting time passing up, on account of guerrillas, and arrived safe home, pretty well worn down with the trip, so much so as to make but slow progress in bringing the FARMER up from the rear where it had fallen during our absence.

We went at our country's call, to aid the wounded, and were highly pleased to find them so well cared for. What they now need is vegetables to ward off scurvy and other diseases that may occur, if the army diet is alone to be used. The labor of digging rifle pits and approaches is immense, and will tell on our men unless they have a more generous diet.

Our Sanitary Commissions are doing a great good and would do more, but unfortunately, the army at that point is cursed with a great bundle of egotistical red tape, called Dr. Mad Mills. We could write a great deal on this subject but must forbear.

### Our Cotton.

One half acre of cotton was so nearly ruined by the cut worm that we had it plowed up and planted to late sweet corn. In all parts of the State we hear the same complaint in regard to this crop, and it is highly probable that some means will be devised to stop this depredator on this crop, or we shall not be able to grow it. We had hoed the crop over, but from the combined dry weather the plants made slow growth and continually disappeared by the cut worm until but few plants were left in a row, not sufficient to pay for the culture, and being short of help we concluded to plow it up. The crop will be very good north of the Big Muddy river; south of that point we hear better about it, but suppose the farms run more to tobacco than cotton.

 If farmers neglect to secure their reaped crops in the barn or stacks this month they will lose more by damage from weather than the profits on their crops.

## Poetry.

### July.

To-day, the meek-eyed cattle on the hills  
Lie grouped together in some graceful shade;  
Or slowly wander down the grassy glade,  
To stand content, knee deep, in glassy rills.

The wandering bee, in far-secluded bowers,  
Hums its low, cheerful anthem, free from care;  
Great brilliant butterflies, fragive as fair,  
Float gracefully above the gorgeous flowers.

The sun pours down a flood of golden heat  
Upon the busy world; so hot and bright,  
That the tired traveler, longing for the night,  
Seeks some cool shelter from the dusty street.

The cricket chirrups forth its shrill refrain;  
The grass and all green things are sear and dry;  
The parched earth thirsts for water, and men sigh  
For cooling showers. All nature waits for rain.

### "To Give is to Live."

Forever the sun is pouring his gold  
On a hundred worlds that beg and borrow;  
His warmth he squanders on summits cold,  
His wealth on the homes of wealth and sorrow.  
To withhold his largess of precious light  
Is to bury himself in eternal night.

To give  
Is to live.

The flower shines not for itself at all;  
Its joy is the joy it freely diffuses;  
Of beauty and balm it is prodigal.  
And it lives in the life it sweetly loses,  
No choice for the rose but glory of loom—  
To exhale or smother, to wither or bloom.

To deny  
Is to die.

The seas lend silvery rays to the land,  
The land its sapphire streams to the ocean;  
The heart lends blood to the brain of command,  
The brain to the heart its lightning motion;  
And ever and ever we yield our breath,  
Till the mirror is dry and images death.

To give  
Is to live.

He is dead whose hand is not opened wide  
To help the need of a human brother;  
He doubles the life of his life-long ride,  
Who gives his fortunate place to another,  
And a thousand million lives are his,  
Who carries the world in his sympathies.

To deny  
Is to die.

Throw gold to the far dispersing wave,  
And your ships sail home with tons of treasure;  
Care not for comfort, all hardships brave,  
And evening and age shall sup with pleasure;  
Fling health to the sunshine, wind and rain,  
And roses shall come to the cheek again.

To give  
Is to live.

What is our life? Is it wealth and strength?  
If we, for the Master's sake will lose it,  
We shall find it a hundred-fold at length,  
While they shall forever lose who refuse it;  
And nations that save their union and peace  
At the cost of right, their woe shall increase.

They save  
A grave.



Dr. JOHN A. KENNICOTT.

**DIED**—At the Grove, Cook county, Illinois, on the morning of June 4th, 1863, DR. JOHN A. KENNICOTT, aged sixty-three years.

Amid the blushing beauties of rose crowned June, they laid him down in his narrow home. No warrior on the battle field with his country's flag around him could ask a prouder burial.

A lover of the floral kingdom, and, above all, the Queen of flowers, the rose, it is meet that he should breathe out his last thought of earth with air laden with the aroma of his patron flower, and that his bier be strewn with its faded petals,—a glorious shrouding and a fitting train for a lover of the beautiful to take his last look of earth.

No wintry winds—no sleety rains shall wake him from the vision that last caught his eye and perfumed the breath of his last morn on earth,—bright, glorious June, thy genial smiles and soft showers had embowered his home with roses again and again, as the years rolled on, but now for the last time has he looked on thy opening beauties.

A loving husband, a fond father, a truthful brother, a kind friend, an obliging neighbor and one with a heart and hand for the general good, has gone home—his name needs no other monument than the living, waving, leafy treasures that have been his care. His many virtues shall not die, for his name is on the first page of the history of rural progress in the North-west, and shall be handed down to the time when floral decorations and love of home shall have ceased on the prairie and wood crowned slopes of the west.

He shall sleep on in the garden that his own

hands had planted and where the summer winds shall softly stir the leaves of his well loved trees, nor will he reck when autumn winds shall gather their leafy garniture in eddies about his tomb.

His spirit has passed beyond the ken of mortals, but his example and his advice are left behind him, a legacy to those who would not lag in the field of rural progress.

We need not, we cannot, write his history, for it is imprinted on the whole history of horticulture since the first rose bloomed in the garden at the "Grove" in 1837, until the morning that he passed away from earth. Yet, from our long and intimate acquaintance, we cannot refrain from giving some of the leading points in his eventful life. Months ago we intended to have given the world something of his history and to make up the deficiency of memoranda previous to the year 1837 we requested him to give us some data of his early life. These notes he kindly furnished us and which we shall add to the recollection of our long acquaintance.

Both of us were born in the same county, both came to this State in 1836, have been a long time neighbors and have pursued the same calling—the garden, the orchard, the farm, with a touch of editorial life. When residing near each other, we have often met; at other times a free interchange has been kept up by correspondence, and through all the long years we stood shoulder to shoulder in the building up of more pleasant homes in the west, and to surround them with the beautiful.

A dozen years our senior, we have always looked



to him with veneration and respect, and now not only as a dear old friend departed, but as a co-laborer in that field of all others needed in the west to make it what it should be, the garden of the world. A few years more and we, too, shall stand on the other side of the great river and look back into the dim and misty past.

There are, or was, three Dr. Kennicotts, so called, two of them dentists, standing high in the profession, and to distinguish them, our old friend was called the "Old Doctor." The younger brother is yet living near Chicago.

The Kennicott family was originally from Devonshire, England, and came to Philadelphia at an early day of its settlement. The grandfather of the "Old Doctor" was one of the survivors of the "Jersey Prison Ship." His father was a mechanic and farmer, and was one of the first to see the value of new inventions and new modes of culture. He owned and worked one of the first carding machines in the county to which he first moved, about 1810. The "Old Doctor," as we choose to call him, was born in Montgomery county, New York, in the year 1800. His mother was of Scotch descent, and possessed a great taste for gardening. There is no doubt that from her is due his taste for rural adornment. The labor of his early years was devoted to gardening under the direction of his mother, and at a dozen years of age he had a small nursery of fruit trees. Of course none of them were grafted, for grafting in that county was little known and less practiced at that time. We allude to the above more for the purpose of showing the influence of the mother on her offspring than for the bare fact itself.

The germ was not only set, but practically inclined, and though afterwards drawn off into another channel, the education of the young, yet it came back to its first promptings when left to its own volition. He always had a dislike to aristocratic pretenses and humbugs of all kinds, but an intense lover of nature. Nothing pleased him more than to wander through the deep wood and pursue his favorite study, botany, under its shade, and listen to the music of the birds.

His bumps of romance and credulity were small,—he has often assured us that he never believed in anything antiquated or conventional. "Dead languages" and fashionable society—priests—politicians, especially the latter, always were his aversion, as well as every ism where a one idea was the hobby.

The family removed to Western New York, and in its wilds the Doctor grew up to manhood. He was self-educated, for at that date there was no district schools in western New York, and, as he

has often said, his school room was the deep wood where he pursued his studies, with such help as his parents could give him. His studies did not interfere with his labor, for at that time there were no idlers in the Genesee country where new homes must be carved out of the dense forest, and from his twelfth to his twentieth year, his labors were of the most exacting kind, carving down the dense forest with his axe in assisting his father to make a home for the family. At that time the Doctor thought few woodmen could "butt" him, while with the gun and fish line he was an expert. Through those busy years of his youth he never, for a moment, lost sight of his favorite botany, though only books and nature to assist him.

At about the age of twenty he was broken down with acute rheumatism and forced to seek some other employment. School teaching and the study of medicine were the most feasible presented to his view, and he at once entered upon it.

In 1820, Western New York began to emerge from the forest wall that bound it, and the light of civilization penetrated its wild waste of tangled wood, out of which thousands of homes had been carved.

He left his forest home and went to Buffalo, then a small village at the foot of Lake Erie. He soon made the acquaintance of such men as David Thomas, John Torrey, and others of like habits, and thus had an opportunity to complete his study of botany through their assistance.

He taught school, and delivered a course of lectures on botany to enable him to pursue the study of medicine.

He also, at this time, commenced writing for the Buffalo papers, and says he was even "guilty of writing poetry, which some of the editors were green enough to publish."

His medical education was completed at Fairfield in Herkimer county. After his return to Buffalo he lectured on botany, natural philosophy, anatomy, etc. He also wrote several scientific articles for the press, but always anonymous.

Now came the crisis in his affairs in debt and in law. Self-educated, self-reliant, he felt as though the world was before him and he would boldly strike out to carry out his fortune. He spent a year in Mississippi in teaching and lecturing, and then went to New Orleans, where his talent and energy soon obtained him the position of principal of "the upper primary school," then supported by the State. For this position Judah P. Benjamin, of confederate notoriety was also an applicant, but the Dr. beat him in the election before the board of education. This school was very large, numbering three thousand on its rolls while in charge

of the Doctor. All this time his pen was busy for the public good, and we think he was the first man to rouse the public to the idea of paving the streets of New Orleans, and building warehouses. These improvements he urged were absolutely necessary to the business and rapidly growing commerce of the city, and to keep the western trade as well as in a sanitary point of view.

Soon after, the Doctor started the *Louisiana Recorder*, a literary and scientific paper. The Dr. remained at New Orleans as teacher and editor until the spring of 1836, having spent a dozen years in the South. Once during this time he returned to Buffalo, in 1834, and passed through this State from north to south, and was so favorably struck with its beauties and opening prospects that the result was his return with his family two years later.

Such, in brief, is the history of the Doctor up to the time when he made the west his home.

Naturally of a feeble constitution, yet few men of his years has performed so much real labor as he has accomplished.

From that time the Doctor has made himself known by his beautiful home at "The Grove;" by his public writings, but most of all by his genial nature and his immense private correspondence. Could this correspondence be gathered up and properly arranged, it would comprise a vast amount of valuable instruction in floriculture and throughout the whole range of rural pursuits. The Doctor was a practical man. He could not, like the Duke of Devonshire, create and build what his judgment advised, for he it recollected, he had nothing but his own hands to build with, yet he has succeeded to no small extent. Had he been born with means commensurate with his taste, he might have built up an establishment that would have been now the pride of the State, but he had no such favorable advantages, and has had to grow up with the west, to feel and realize all the drawbacks to a pioneer settlement, and while educating the people to a higher taste in the adornment of home, has set an example worthy of imitation, and his home at "The Grove" is now one of the most beautiful spots in the State, abounding with rich fruits, flowers, shrubs and trees, both native and foreign.

To the noble "Old Doctor" is due the present plan of our department, and at the head of which he should have been placed, but at the time of its creation our State was represented by politicians who had neither time nor taste to do justice either to their own State or to the name to whom the first inception of the plan was due. To him who had spent years in devising and bringing it into

working shape. The reason for this neglect is plain to us,—they all knew that the Doctor could not be made a tool of, and that the institution, if under his control, would be one for the people, instead of a foot ball for political harlequins, hence some other person had to be selected who was at least supposed to be more pliant, but we trust they have mistaken their man, and that the noble institution over which the Doctor wasted his last energies will be kept out of the hands of these harpies and yet be of benefit to the great mass of the people.

In the Northwestern Fruit Growers' Association, the Doctor took an active part from its formation in 1851 at Princeton, and was president for several years, in fact until he longer refused to hold the position. His ill health admonished him from time to time to forego the pleasure of public meetings, and of late years he has not been able to take an active part in them. In all this time his pen has not been idle either for the public or in private correspondence. Had we more space, we would like to say more and to point out some of the good things that he has done the tree and flower planting public, and we trust that we may do this at some other time. The Doctor has always been one of the most unselfish men, of strict integrity he has always believed others to be so, but has too often found it otherwise.

The New York nurseries found it convenient to vomit their refuse stock into the western prairies with a persistence worthy of a better cause. The unsuspecting good nature of the Doctor of course came in for a large share, and his grounds were soon gorged with all the evils that ponderous plant boxes could hold. To sort out the evil from the good, the true from the false, has been his study, and well has he performed his part in the arduous task to clear the Augean stables of all this trash.

With a soil and climate differing in several respects from all other parts of the New World, we have had to feel our way and to make out a new and hitherto untrodden path. In this new field the Doctor has been a successful worker, and if he did not grasp all the great truths at once, he allowed no obstacle to stand in the way, but kept on an ardent seeker in the field of practical knowledge. Slow, yet sure, he climbed the steep ascent that leads up the hill of rural knowledge, and if he did not attain the summit, he has left a broad pathway plainly marked in which all may travel. His steps are all plain, none of them lie hid beneath the drapery of his idols or covered by the debris of their fallen leaves, all, all is plain to the point of his last steps, and the flowers shall

bloom all the brighter over the place where he fell with his harness on.

## Agriculture.

### Tea Culture in Pennsylvania.

The *Gardeners' Monthly* says that the culture of the tea plant is to have a trial in Pennsylvania. We had supposed that the tea plant would not thrive so far north, and the editor of the *Monthly* is also positive on this point, and thinks, "the experiment will turn out as valuable as Australian coffee, tree cotton, and many other ignorant schemes of ignorant men—for we do not regard them all swindlers—we did not suppose there were any green ones left. But it appears the maxim of the philosopher that there is a "new fool born every day," is about right.

### Harvesting Barley.

The value of barley to the brewer depends on its lightness or the absence of any weathering of the grain after cutting.

Barley should be cured and threshed at once direct from the field, and not allowed to stand out in the rain or to be watered by the dews, as either will lessen its value.

The best way is to cut and throw it into gavels and when sufficiently cured, load it with a barley fork, and thresh at once; this will save binding, and as barley straw is short, and if carefully loaded, it can be readily thrown into the thresher. A two horse power railway thresher and cleaner is a good thing, as it will not require so many hands to run it—one man to feed, one to take away the straw and put up the grain is all that is needed, as the grain is thrown directly from the wagon to the feeder. In stacking barley, more or less is lost, besides the less price that it will bring after going through the sweating process, and the grain becomes dull in color.

**FREE NAVIGATION OF THE MISSISSIPPI.**—It is stated that Gen. Grant, very soon after the surrender of Vicksburg to the United States forces under his command, dispatched the steamer *Imperial* to New Orleans, with instructions to return to St. Louis as fast as steam could carry her. The object of this demonstration is to show to the world that the Mississippi is open for navigation its entire length, with no other interruption than may be experienced from a few guerrillas, who may for a time infest the banks of the river.

### From Washington.

POST OFFICE DEPARTMENT,  
APPOINTMENT OFFICE,  
WASHINGTON, July 6. }

*M. L. Dunlap, Esq., Champaign, Illinois:*

SIR: The fifth sub-division of the 42d instruction under the new post office law, is hereby amended by striking out the word "twelve" and inserting "thirty-two" before the word "ounces," so that it shall read as follows: "The weight of packages of seeds, cuttings, roots and scions to be franked is limited to thirty-two ounces."

By order of the Post Master General.

ALEX. W. RANDALL,  
1st Ass't P. M. Gen.

DEPARTMENT OF AGRICULTURE,  
WASHINGTON, July 7, 1863. }

At the suggestion of the Post Office Department that the above order be published as extensively as possible, you will confer a favor on this Department and on the farmers of the country, by giving it a place in your paper. It will be seen that the right to send the usual weight of seeds, cuttings, &c., and the frank of this Department has not been abridged.

Very respectfully,

Yours, &c.,

ISAAC NEWTON,  
Commissioner.

### Two Horse Cultivators.

We have numberless complaints in regard to these—bad timber, green timber, poor iron, and worse steel are all found in the catalogue of ills. Tires running off, shovels, wood work and bolts breaking—good for the smiths, bad for the makers who have, in most cases, warranted their work, and very bad for the farmer who loses his time. This won't do, a change must come over the spirit of your dreams, or the profit of your work will melt away. Manufacturers of agricultural implements have something yet to learn, at least out west, they must use better and more thoroughly seasoned material. As a general thing, our Eastern made tools are better on these accounts. A little more competition, gentlemen, will do you no harm.

### Flax Machine.

A new machine is now in use for breaking hemp and flax, by which the whole of the woody part of the stem is taken out without making any tow. It is worked with two horses attached to any ordinary horse power. Its cost we have not learned as yet.

### Our Agricultural College Grant.

The idea of selling out or the donating of this grant to Knox and Shurtliff Colleges is simply a fraud on the Government of the United States, and a base swindle of the Agricultural interests of the State. We trust that no such thing will be consummated. The plan of making this the motive power to build up sectarian religious denominations, is repugnant to the spirit of the grant, and a gross violation of right. The politicians who lend themselves to this scheme may some day find that the people are not all fools, if the sanctimonious hypocrites are all knaves. It appears to us that no honest clergyman would wish to divert a fund devoted and intended to educate the people in rural pursuits, and turn it to the building up of his religious denomination. If there is such a man he possesses more of the satanic character than is valuable to the State at large. Such a man is not to be trusted.

The notion that for this fund, the colleges shall teach agriculture as an equivalent, is the sheerest moonshine.

Let us have an agricultural school, divested of all isms, and devoted to the improvement of the soil and of rural homes. We want none of the dead languages, none of the speculations of the day, no tinkering by politicians, or rival sectarians. We do not want the fund to be used to redeem some bankrupt institution, or to be trifled away on abstract theories, but put to its legitimate use, what Congress intended it for—to advance the interests of agriculture—to investigate new truths, and to make plain old ones. We have a great field to work in; a climate and soil peculiar to itself; insects that swarm in myriads to destroy our crops, many of them new to the older parts of the country, and which need be looked after.

We intend to look after this matter a little and see what comes of it. If the fund is to go to build up sectarianism, we shall go in for a general deal, and not give it to two favorites, because we happen to be a member of one of them, and divide with the others out of policy.

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### Flax and Carrots.

One of our neighbors sowed an acre of carrots with his flax. The crop of flax is very good as well as the stand of carrots. It was his intention to have pulled the flax, by which the carrots would have been very well cultivated, but for want of help the flax will be cut with a scythe, a common reaper, and leave the carrots to their fate. We shall watch this crop with no little anxiety, and hope the double crop will prove successful.

### Haying.

Hay is often damaged by too long exposure to the sun. It should be wilted and then placed in cock at once to cure out. As soon as it is well cured it should be hauled in. It can be put in stack quite green if a little salt is sprinkled on the first two or three loads at the bottom of the mow or stack. If put at the bottom the salt is carried up through it in the process of sweating, and the whole becomes salted. We always put more or less salt on our hay. The stock relish it much better, and it saves the trouble of salting them; but care should be used not to put on too much. Some people want to get done cutting all their hay before hauling in. This is wrong, it should be hauled in as fast as ready, even if you are not done cutting. A ton of good, well cured hay is worth two indifferently cured. Better let some of it get overripe, than spoiled by the weather.

Meadows should be top dressed with manure as soon as the hay is taken off. This will cause a bountiful crop much sooner and a good aftermath for fall pasturage.

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### Grain Binders.

At the Reaper trial held at DeKalb on the 15th and 16th of July, we observe some improvement in grain binders, at least some new features in them.

Burson's binder during the first day's trial failed to give satisfaction, though on the second day the work was entirely satisfactory. We have been unable to work the Burson binder to this date, July 21. We either do not know how to manage it or there is some defect in it, we hear like complaint of others. We have no doubt the difficulty will be overcome, and that it will take its place among valuable farm implements. In the report of the trial, Sherwood's binder was entered, but no further notice was taken of it, while that of Powers & Lancaster, from Coldwater, Mich., was in the field and done good work. We think that the cost of twine is put at too low a figure, say from 28 to 32 cents a pound. Wire costs 25 cents at present, double that of the old price. Both of these will doubtless be reduced in a year or two, to a reasonable rate.

The new feature is the hand binder of the Marsh Brothers, it is a real novelty, and one that appears practical. We can see no reason why this will not work, and prove a sharp competitor with wire, twine and the headers. But there is a difficulty in binding on a machine in motion that few persons can overcome. The machine of Adams & Sylla, made in 1853-4, was so arranged that three binders did the work aided by a raker, but the swath

cut was only some four and a half feet. This machine had another feature that we like very much, it contained a platform for carrying the bundles until a sufficient number accumulated to make a shock when they dumped, by the aid of a spring catch.

If heading is practicable, which many contend is the case, binding is out of the question, and the thrasher should receive the cut grain from the reaper of the Marsh machine, retain the grain in sacks, and leave the straw on the ground.

Invention in the harvest field is not as yet exhausted, by a long way. It has taken years to perfect the self-raker, but it is done at last, when up comes Burson and others to do the binding, throwing the self-raker aside, but now we see it aiding, the string binder to do the heaviest part of the work. Perhaps Burson will let out his raking to it by next year, and thus save one hand,—and one step further, may not the driver by the aid of clever machinery, operate the binder? "We shall see what we shall see."

### Agricultural Fairs Again.

It is gratifying to observe how sensibly the agricultural men of the country are settling down again, after two years of distraction, into their accustomed channels of effort for the advancement of the great interest to which they have consecrated themselves, and are this year so much less disturbed by the turmoils than heretofore. We would not have them lose their interest in the grand struggle in which, as a free people, we are engaged with the demons of rebellion—for vast consequences hang upon its termination—but we would have them so far prove their wisdom and patriotism as to devote all their practical energies to that interest upon the perpetuity of which the ultimate success of the Government seems now, more than ever, to be staked.

If we are not to break down the rebellion by great victories won on the field of Mars, it must be done by an obstinate hemming in of the rebels on every side, and by triumphs in the Field of Industry. For the farmer, therefore, it is patriotic to attend to his farm until his country shall call for his services in the ranks of war. Industry was never so much in need of the earnest efforts and enthusiasm of its votaries. And, inasmuch as agricultural exhibitions have been found to be a very efficient means of advancing the interests of practical agriculture, it is hoped that every effort will be made to insure their success this year.

It is possible that, after all has been done that can by the most zealous friends of the many Societies of our State, some of the exhibitions will not be all that they otherwise might be made, nor equal to some of the great successes of the past, but what of that? There is but little doubts that with proper effort they may, without exception, be made to clear expenses; and if they do no more than this, the results can hardly fail to make full compensation for the labor expended upon them.

Members of Societies, if your officers have be-

come lukewarm in these matters, kindle them anew by the fire of your own enthusiasm, and thus set the ball a-moving once more.—*Wis. Farmer.*

—The above will do for our latitude also, and we cheerfully give it a place.

If the fair is not all that it should be, it ought to be held to keep the interest, not sustained by monkey shows, horse races, buffalo hunts, or drunken revels, as in some instances of last year, but genuine agricultural and horticultural exhibition. We have a premium list before us in which \$31 is offered on agricultural implements, twenty-four first premiums of 50 cents each on farm products, \$8.50 on fruits, \$13 on flowers, \$3 on dairy products, while horses come in for \$193. With such a bill, will it be any wonder that horses will form the chief attraction and the fair culminate in horse racing and lager beer. We hope for a better result, but experience thus far has been against it.

Ed.

### Topping of Cotton.

The topping of cotton is practiced in many parts of the South, when the crop is over luxuriant and, as that is its tendency in our rich soils, there can be no doubt it would be beneficial here. On account of the dryness of this season thus far, the cotton is small and backward, and may not need topping, but a heavy rain may bring it forward rapidly, when it would be well to cut out the leading shoots.

### The Aquarius.

This is a hand force pump. The box holds some thing over a pail of water. At the bottom is a stirrup on which the right foot is placed to hold it in place, when with one hand you work the pump, and with the other direct the hose. In the green house and small yard it is invaluable.

We have a garden engine yet find no small amount of work for the Aquarius or force pump. It is very handy when a single bucket of water is needed. It can be used by persons of moderate strength, not capable of handling the garden engine. They are made very strong and durable, and cost but a few dollars. Ours came from the warehouse of H. W. Austin, Chicago, who has on hand most kinds of farm and garden tools at wholesale. It is probable most of our country hardware stores can furnish them as cheap as to send to Chicago, at least when ordering similar goods of M. Austin.

—Curran was asked by one of his brother judges, "Do you see anything ridiculous in this wig?" Nothing but the head," was the reply.



Horticulture.

Substituting Nursery Stock.

We hear no small amount of complaint in this part of the State during the last spring, in regard to substitution in filling nursery orders. It appears that no regard at all has been had to the wishes of the customer, but the nurserymen, or rather the dealers, have filled the orders on their own hook. Did a farmer order a hundred apple trees, half of them of some favorite kinds, no attention appears to have been paid to it; did a lady desire a particular rose, she was sure to be disappointed. In one case we hear of a lady who ordered two dozen verbenas, and received them all of one kind.

These goods nearly all come through the hands of traveling agents, some from our own State nurseries and others from Ohio. We have been asked to publish the names of these nurseries, but if people will fool away their money on tree agents of any kind when they can be better served by ordering at the nurseries of responsible men, they may seek their own remedies. If B owns a nursery, and C instead of ordering from him direct and making him responsible for the selection, orders from some traveling pretended agent, who fills the order with the cheapest he can get, who is to blame but C? Nurserymen grow what they can sell, and if the tree peddler engage of them a cheap grown stock, they will be accommodated as a matter of course, but if cultivators order the best variety of plants and will take no other, of course they will grow them. So long as there is no discrimination in the variety of apple trees, the rapid upright growers will be propagated, for who will propagate the Yellow Bellflower, the Winesap, Roules' Janet, Standard or American Summer Pearmain, while rapid, upright, though comparatively worthless sorts will sell just as well? It is the whip the peddlers want. What care they for the future value of the orchard? It is their business to purchase at wholesale as cheap as possible, say eight cents cash for the apple, and sell at twenty to twenty-five cents to their dupes. While if the farmer would order from the nursery direct, he would be better dealt by.

We make no exception to this rule, for we believe that in no case will a person do as well as to order direct from the nursery. The truth is, these agents are nine times out of ten no agents at all, but agree to take of the nurserymen at certain rates what they can sell, and what is more natural in such a case than for the nurserymen to give them the poorest part of the stock? Will he not

fill the order that is sent to him first and out of the best, and that too without substitutes, while the refuse will go to fill the orders of the peddler or pretended agent?

There is no branch of business that needs reforming more than this. One would suppose from its nature that we might expect better things from the men engaged in it, but the *selling* has got into the hands of a set of scamps through the indifference of the planting public. Local nurseries are ruined by the system, at the same time, the large nurseries who furnish them, breaks or the body politic make but a small profit, and many of them have went under.

The remedy is with the people. So long as they order through the agent and take substitutes, they can have the privilege of doing so for all we care.

Much has been said of Eastern tree peddlers, but they are gentlemen beside many of our native. In the first place they have better stock to choose from, and besides the Eastern nurserymen are beginning to protect themselves by employing a better set of men, or at least see that the goods shipped are true to name.

We are largely engaged in fruit growing, having over a hundred acres in orchard, and have been made to realize the value of this substitute system, in our purchases at wholesale. We have done with test also, and we now take nothing but what we order. When we agree for Bartlett pear, or when a certain order is agreed to be filled we do not take the leavings of the season's sale on the plea that "the stock is run short and others had to be sent." We take the kind ordered or none at all. Last spring we purchased several thousand pear trees, and they came as agreed upon, with one exception, and that in our favor. "We had not sufficient Buffum of the age agreed on to fill your order, and are compelled to send you those a year older." We should not have complained if they had not been sent, but this man knew that if he had substituted them they would be on his hands.

So long as tree planters submit to this abuse, so long will it be continued.

Work for the Orchard.

We begin to bud this month, and close with peach early in September. The rule in budding is to do it when the bark will peel freely, and the buds to use are pretty well matured. In budding apples, we sometimes start them the same season. This can be done if the buds are set early in the season, by cutting back the stock budded to within three or four inches of the bud. This is best done two or three days after the bud has been in-

serted and has commenced to grow fast. By taking off the stock the sap forces a growth into the newly set bud, and it will make a good growth the same season, often two feet.

This is a good month to correct the habit of trees, either by cutting back or pinching out the leading buds.

Insects should be looked after and not allowed to make their nests. A little attention in time will save no small amount of damage. The birds being fully protected in our grounds, we have little to do, as they cheerfully attend to it in return for ground and nest rent. They take a small per cent. of the fruit also, for pay, but thus far the benefits are mutual, and we shall extend the contract another year at least. We think seriously of growing canary seed for them, and to take our pay in bird music, we think it will pay. Cannot some of our young readers give us something on this head worthy of attention? We have whole orchestras of bird music at so slight a cost, that we would recommend them to others. This morning Bob White leads the choirs, and we have taken the hint that a rain storm is brewing, and have changed our work hands to taller weeds, that will be sure to die if cut off or pulled up, even if they are wet down.

Trees that are overloaded should be thinned out. In doing this shake the fruit from pendant twigs and not those that grow upright. The best and largest specimens are on spurs or upright branches, especially is this the case with the peach. Peaches growing on branches that are above a horizontal line are always the largest, and in thinning the fruit be careful to leave all such, and take off only those from the branches that droop, that is at the point of the fruit, where the branch grows outward and falls below a horizontal line.

All newly planted trees will need mulching this month, otherwise many of them will be lost. Trees that were set last fall, will need less care as they are better established before the dry weather comes on, and thus enabled to stand the dry weather.

### The Plum Gouger.

I am glad to add a little imperfect testimony concerning the insect so christened by B. D. Walsh, in the *Prairie Farmer* of June 13th.

About the 10th of June, as I was examining some nectarines, to ascertain the extent of the ravages of the curculio, the present season, I noticed the round puncture described by Mr. Walsh, differing however, in being considerable larger than he figures it. This, however, might be an enlargement of the original puncture. The gentleman within, struck directly for the stone, and was "almost there," a thin wiry looking fellow of pale countenance.

I suppose this to be Mr. Webb's new insect, but did not know anything of his paternity.

W. C. FLAGG,  
*In Prairie Farmer.*

Madison Co., Ill., June, 1863.

—At this date, June 28th, the round puncture in our plums, do not look as though they would be of material injury. The plums are nearly an inch long, and if the insect is to damage them he will have to bestir himself soon. It is very probable that we have more than one insect that makes the round puncture, as we cannot find any deep holes spoken of in another place by Mr. Walsh.

Our plum trees are in the yard between the house and barn, where the poultry have free access at all times, and not a plum has been stung by the curculio. We had planted the trees in the orchard, but losing this crop we removed the trees, and this is the third year the crop is unharmed. Ed.

### Address by the President.

B. D. Walsh, Esq., of Rock Island, President of the Society, read a paper upon "The Fire Blight," which has proved so destructive to many classes of fruit trees—especially pear trees. He assumes that the great difference between the price of apples and pears is owing to the destruction of pear trees by fire-blight.

Some writers have advanced the idea that the insect *saollatus pyrus* is the cause; others attribute it to one and another cause. There is also a difference of opinion as to the advantage of cutting off the limbs affected. Mr. Welsh carefully compared the symptoms and appearance of the trees said to be affected in the East, with those in the West. Downing's "frozen sap blight" cannot be the cause. This is demonstrated by the fact that here and there only patches of trees, or frequently only a portion of one tree is thus affected; again, after remarkably mild winters, the blight has been fully as prevalent as after the most severe winters. Thus far there is apparently no exceptions in the varieties, soil, or climate. He does not think Downing's theory correct.

He believes that the insect commonly called "leaf-hopper," (of which there are several species of the same family,) about one-eighth of an inch long, is the cause of the so-called fire-blight. His careful observations, for two or three years past, has confirmed him in this belief. Since the publication of an article in the *Prairie Farmer*, some months since, on the subject, he has actually observed the insects in the act of penetrating the bark of trees, where its eggs are deposited. He concludes that the eggs are deposited in the autumn or spring upon the twigs by this insect, and that they do not hatch in less than three or four months, and the effects of their work is not apparent till June or July. He believes that two broods are hatched every year—one in spring, and the other in August—depositing from 400 to 700 eggs each.

He claims that many of the insects of America, as well as many of the animals, are distinctly native American—peculiar to this country. Hence, the so-called fire-blight is unknown in Europe.

He invites the attention of farmers to the investigation of this subject, and requests them to examine the under side of the leaves during the latter part of July and first of August, to see if the leaf-hopper is present, and also to note whether the trees are not afterwards attacked with what is known as the fire-blight.

—We take the above from a correspondence of the *Chicago Tribune*, of the Natural History Society at Bloomington.

We have apparently two kinds of fire-blight; one of the leaf, in which the bark is soon involved, and one of the bark and wood, in which the leaf is at once destroyed. In the former, the leaf is of a dark brown, and the latter nearly a black color. There is another leaf blight, in which the leaves turn spotted and fall off. Sometimes a new growth is made and the tree lingers for a year or two and then dies. This has proved the most destructive to us of all the blights, destroying our pears, plums and quinces. We received it among a lot of imported pear trees, and also in a lot of plums from Cleveland. We have been free from this latter blight for some years. Last year we lost a few pear trees from the fire blight. We have heard farmers call it sun scald, from its sudden appearance. In seasons like this in which the air is well charged with electricity, we think it less common. We have always attributed it to electricity. This may in fact be true, and yet not conflict with the views of Gen. Walsh.

The rapid breeding of these small insects, may be due in a great measure, to electrical agency, and thus give our idea some appearance of fact. We shall await further developments before we come to full conclusions in regard to the matter.

Ed.

### Labor Saving Machinery.

By the aid of improved machinery, one man can now spin four hundred times more cotton yarn than the best cotton spinner could in 1769, when Arkwright took out his first patent. In grinding grain and making flour, one man can now do one hundred and fifty times more work than he could a century ago. One woman can now manufacture as much lace in a day, as a hundred women could a hundred years ago. It now requires as many days to refine sugar, as it did months thirty years ago. Only forty minutes are now required to fix an amalgum of mercury and tin on a large looking glass, which once occupied six weeks. The engines of a first class ironclad frigate perform as much work in twenty-four hours as forty-two thousand horses.

—If I argue with a man who is in a house on the other side of the street, why can't we ever agree? Because we argue from different premises.

## Stock.

### Importance of Our Sheep Husbandry.

The United States *Economist* contains an elaborate and well-written article on the importance of sheep husbandry to the loyal States, from which we condense some interesting ideas which are worthy of the attention of all our readers:

"For years past the quantity of wool manufactured in the United States has averaged full 125 millions of pounds. Of this quantity not more than one half has been grown here. While we have been exporting grain and provisions to an immense amount, we have imported wool from Australia, the Cape of Good Hope, South America, China, Russia, India, and in short from every other quarter of the globe, and are doing so to-day, though it is an indisputable fact that no country on earth is better adapted to sheep husbandry than the North West. Should the agriculturist neglect to grow a sufficient quantity of wheat and corn to supply our home demand, it would be regarded as a most surprising evidence of lack of enterprise, and yet facilities of soil and climate are no better for producing corn and wheat than they are for the growing of sheep. In Australia and the Cape of Good Hope, where sheep husbandry is carried on extensively and at a large profit, the climate is not so favorable, the soil is barren, and there is no market for mutton; while in the West the soil is rich, the climate dry and cool, and our large cities furnish a ready market for mutton, at higher prices than in London and Paris. For years past the people of the West have seen the wool-buyer running through the country eager to contract for wool "on the sheep's back." How much more will they be in the future, when the consumption of wool has increased fifty per cent., as it is likely to be! Although the clip of wool will be larger this year than upon any former occasion, still our Western farmers do not realize the immense increase of the demand which will be created for this great staple by the cutting-short of the cotton supply. We have at present in the loyal States twenty-five millions of sheep, and we believe that this number could be doubled without producing a sufficient quantity of wool or mutton to supply the demand for the next five years. There is no mystery about sheep husbandry. All that is required to conduct the business successfully is an exercise of plain common sense, which dictates that all domestic animals (and sheep in particular,) to thrive well, require to be well fed, to have plenty of room and to be protected from storms. The soil and climate of the North Western States are admirably adapted to sheep husbandry, and the farmers of that section could not possibly turn their attention to a more profitable branch of agriculture. The sheep best adapted to the production of worsted are the Leicester and Cotswold breeds, and can be obtained in Canada to any extent and at reasonable prices. The carcasses are large and the fleeces of long staple, which makes these breeds more valuable both for the clip and mutton."

—What is the only thing that a mean man does not keep? His word.

## The Dairy.

### The Grades of Cheese.

We think the names by which the various grades of cheese is known in the Chicago market, is one of the greatest humbugs of the day. To show how it is esteemed in market, we clip from the price current of a Chicago daily:

CHEESE—Dull, Hamburg 11 @ 11½c.; Western Reserve 10 @ 10½c.; Illinois 8 @ 9c.

By the above, the unsophisticated reader would be led to suppose that Hamburg cheese is made in Hamburg, Western Reserve in Western Reserve, and Illinois in Illinois. This is all bosh, Hamburg is simply No. 1, Western Reserve No. 2, and Illinois No. 3. Now we come to a point in which our State pride revolts and one that it is time to have corrected, and that is to grade Illinois cheese the lowest in the scale, Western Reserve the second, and Hamburg, which is a mere myth, the highest. Hamburg is a township of that name in Erie county, N. Y., and the cheese made there and sent to the Buffalo market is the well known Herkimer county brand. Western Reserve and Illinois cheese are made in the same kind of vats, after the same formulous and only differ according to the skill of the makers. In making cheese, scarcely two persons persue the same plan, though their cheese may be very similar. The great secret of rich cheese is dependent on the skill by which the cream of the night's milking is incorporated in the curd, so that it does not whey off or press out.

#### HAMBURG CHEESE,

As sold in Chicago, being No. 1 cheese, is made in Illinois and Ohio, a large part of which is from that part known as the Western Reserve, of course none comes from Hamburg and but little from Western New York.

Under the quotations in the Chicago papers, Illinois cheese is rated No. 3, and purchased at corresponding prices where it can be done, but when sold it is put into boxes and marked, if No. 1, Hamburg, if No. 2, Western Reserve, and nine times out of ten you can get no Illinois or No. 3 cheese of a Chicago dealer, he is "just out," having, of course, just sent off the last under the above names. This is not only a fraud on our cheese makers, but a base swindle on the good name of our State. It is advertised to the world that either our cheese makers are incompetent or that the cows and pasturage are not adapted to the making of first rate cheese, when nothing is

further from the truth. The fact is, that a large proportion of our Illinois is sold by dealers under the name of Hamburg than that from Ohio, not but that they make good cheese in Ohio, but that the very best Ohio daries are sent East. We know whole Illinois dairies that are sold for Hamburg and whose owners get the corresponding prices,—they have had their eye teeth cut, and know what they are about. It is natural for every person to think that he is getting a better price than his neighbor, and several of our large dairymen think themselves the lucky one, but they will some day wake up to the fact that they have been slightly sold.

This keeping down the credit of Illinois cheese will soon be played out, and the dealers who have played what they call a clever trick, will be ashamed of themselves.

The true way to grade cheese is by number designating the quality, without regard to where it is made. We trust the commercial reporters of the Chicago press will no longer present the good name of the State to be traduced in this way. If any of them wish the names of dairies and dealers alluded to, they can have them.

We have thought seriously of publishing a list of names, and may yet do so.

### Threshers and Cleaners.

In our advertising department will be found the card of the Empire Agricultural Works, New York.

From testimonials on our table, we have no hesitation to commend the machine of the Messrs. Hardee as among the most valuable in the market. We have used the railway horse power for several years, and for all small farms, say of three hundred acres, esteem it the most valuable. With a patent break, the danger of injury by the band running off is overcome, and the trouble of watching the team is dispensed with. A railway horse power, thresher, wood saw and clover header are valuable on all small grain farms. The horse power is adapted to various uses, such as grinding apples for cider, ginning cotton, cleaning broom corn of seed, grinding corn, and numerous other uses, when the proper machines are attached to it.

—"My dearest Maria," wrote a recently-married husband to his wife. She wrote back, "Dearest, let me correct either your grammar or your morals. You address me, "My dearest Maria." Am I to suppose you have other dear Marias?"

## Salmagundi.

At great expense of money and labor we have induced our readers to ask as they ought to ask the following questions. We have made arrangements for an abundant supply in future.

### A SWINE HERD BOOK.

"I have a lot of Chester White pigs for sale at five dollars a head. I know them to be pure, as the sire was from the celebrated stock of Mr. Johannus Clongotus, and the sow was purchased of a lady in Kilgubbin. She (the sow not the lady) was well bred, having been brought up in the family. The pigs are very fine pigs indeed, worth ten times what I ask for them, but people will not buy, as they say no Chester Whites are pure, unless forward in Chester county, and traveled by express. If this is so, is it not time that we had a swine herd book, to protect ourselves against being imposed upon by those old fat Dutchmen down in Pennsylvania.

JOHN SMITH."

Of course we must have a Swine Herd Book, for there is not a county in the State but has a better stock of hogs than can be found in Chester county. These Chester county hogs are descended on one side from the China or what is called the suffolk, and a medley of the old English, or Russian—a large framed hog, introduced into this country near fifty years ago, and which for their great size were the favorites for a time, but soon gave place to the China, or rather a cross of them with the the China. Out of this class came the Byfield and other improved breeds, which have been crossed and re-crossed until it is impossible to tell which race predominates.

A pure Chester White can be got up to order from a good Suffolk boar and one of our large, long bodied sows, the progeny partaking of both, making a good cross.

We advise you to forswear the name Chester White and call them the Smith Breed. You now have the stock pure, and just the thing with which to begin the new herd book, as the pedigree of present breeds are so lost in the mist of antiquity, in fact the last herd we read of were all lost at sea. We say wipe out the old score. and from this time begin the history of the new breeds. Everybody run after new things. We are tired of the Chester Whites and must have a change, if it is nothing more than an extra curl in the tail.

### DOMESTIC ECONOMY.

"What do you think of a farmer who sells all his eggs, chickens and smoked hams, and diets his family on salt pork, potatoes, bread and pea coffee?"

X. Y."

Why, we think him a fool of the first water, and he will find it so when his children leave him at

eighteen, to go to the village to learn a trade, (to go from home,) and in after years watch each spell of ill-health, hoping it will be his last. Such a father is worth just what his estate will bring through the hands of the administrator. Old Ben Franklin says such men are

"Coarse brown paper,  
Such as peddlers' choose,  
To wrap up wares,  
That better men will use."

"Why is it that farmers as a general thing have such an antipathy to a good truck patch? P. S."

They dislike good living, being believers in universal salvation and the punishment of sin in this life, they want to do penance and live poor in this world, so as the better to enjoy the next.

They think the end and aim of man is to starve himself under the idea of making money. The charge can hardly be said to be general, for some farmers and many farmers' wives do have good truck patches, and live first rate. This class always make money, they are never swindled by the peddlers and other humbugs, as they always take the papers, and of course are posted.

"I have a first rate field roller, which my neighbors have used very freely, this spring one of the wood gudgeons wore off and required about an hour's work to replace it. Being through with its use myself, I proposed that he repair it, but he had no time and went home. The second neighbor came with his team and left it also.

These men had highly extolled the use of this same roller, but now when an hour's work is required to put it in order, and a part of which was due to their previous use of it they refuse to take it. I was not a little surprised at this state of facts, and ask you to explain them if you can."

Farmers who habitually borrow agricultural implements, never repair them, they much prefer to take one in good order. We never lend to this class of men the second time, and advise you to charge half a dollar a day for the use of your roller hereafter, and it will be in good repair when you want it for your own use. Your neighbors have worn it out and now refuse to repair it. You can make them three propositions:

1st. To make or purchase a roller.

2d. To do without.

3d. To pay you half a dollar a day for its use.

We will warrant they will take the 2d proposition.

"Should cattle be salted? A YOUNG FARMER."

Yes, on two occasions:

1st. About once a week during their natural lives to keep them in good health, and

2d. When fat and put in the barrel for beef, to be salted for the last time. On this occasion with rock or solar salt, and a slight sprinkle of salt-peter.



"Can I set out a bed of strawberries in August.  
LIZZIE."

Yes, should a rainy time occur, if not the thing cannot be done without a deal of watering. The plants should be shaded with a light sprinkling of straw over them. April and May are the best months in which to set out strawberry plants. In well prepared beds they will give some fruit the same season.

"What are onion sets, and how are they grown?  
BOB."

Onion seed can be sown any time in July and first of August, sow thickly, and when the bulbs are one fourth to an inch in diameter, can be pulled and laid on the ground a few days to cure, when they should be put in a dry place, free from much frost through the winter. Early in the spring these sets are planted, in well prepared soil by pressing them into the earth nearly even with the surface. This is one of the best modes to grow onions south of 40° latitude, and answer well north of it.

"Is sweet or sugar corn health? My mother says it gives us children the summer complaint. I hear that in cities they make daily use of it.

BENJAMIN."

Just so, if your mother gives you now and then a Sunday meal of it, you are apt to so gorge yourself that the result is an attack of summer complaint, but if you make a daily use of it, as you do of new potatoes, no ill effects will follow. We plant it at several times, so as to have it fresh and good until frost, and can later, for we cut and shock it, and thus have it until November. We could not think of doing without our sweet corn for dinner and supper during its season. It is no longer a luxury but a necessity. The first planting gregate wealth is estimated at no less than one thousand millions of dollars. is of the early variety, and the other of Stowell's evergreen.

"I have a letter from brother John who is a soldier at Vicksburg, that the Spanish moss is very abundant, and festoons the trees, and that the soldiers make beds of it. Can he send me the seed so that it can be grown here?  
WILLIE."

The Spanish moss is a lichen or parasite, and feeds upon the sap of the trees that it grows upon. It is only found in the river bottoms and along the Bayou. We have samples of it that we gathered at Chickasaw Bayou, where so many of our brave boys fell, last December, in the attack under Sherman in the rear of Vicksburg. We saw large numbers of beds that had been made of it by the soldiers in the *abatis*, where they must have laid several days without tents. It cannot be grown North.

It requires some mechanical preparation before it is fit for a mattress. It finally kills the tree that it grows upon, a veritable parasite. In the winter season it must give to the tree a funeral appearance, while in summer it adds dignity to those deep tangled forests that skirt the rivers and bayous of the South.

## Correspondence.

### Peaches in Egypt.

*To the Editor of the Illinois Farmer :*

This is July 20th. Peaches have now been sent to market in very small quantities for ten days; but none have been really ripe and few sound. They were peaches however. The prices have been from seven to eight dollars a bushel. I think that the first that ripened is called Honest John, other next early York Serrate. The first is hardy, and of fine color, both of about the same size, rather small, but the latter rots very badly, as it did also last year, and so far as our experience goes it is hardly worth raising. The fact seems to be that peaches which ripen so very early do so because of their tendency to rot, the same as wormy defective fruits ripen sooner than some other specimens. The Honest John, however, seems to be the only exception. Really good eating peaches may not be expected before the first of next month, when the large Early York will be on hand, which, for eating under the tree is perhaps as good as any peach growing. The crop of the earliest kinds will disappear by that time.

There is a very great difference between early market fruit raised for money, and a fruit which has real merit. One must wait till the last and not become impatient, the same as a man must wait for the perfecting of his own good qualities. Girls and boys, for instance, becoming all at once men and women, being as tall and wearing as large clothes and shoes as anybody, *are* men and women, as the phrase goes, but too many have only an outside beauty and rosy cheeks, very like the Early York Serrate, but when you pear and cut into them, so to speak, you are disappointed. If you let the young folks mature a spell, stand out in the world's heat, become pelted by the storms, tossed by the winds, shrouded in dark disappointment, as in a night, you may expect genuine fruit; and if cultivation has been good, if the grubs of pride and self conceit and envy have been exterminated, and a decent, though not excessive shortening in has been practiced, you will have added to the excellent internals a beautiful, enchanting exterior. Such may be compared to the yellow French Rare

Ripe, Bergen's Yellow, Crawford's Late and the like.

Our crop is short, very short; on all low lands nothing, on much of the high lands deficient more than a quarter.

One word more. A peach tree can be raised about as easily as a hill of corn—that is, it annually wants about the same labor—a hill of corn may be worth two cents—any budded tree when fairly started, is worth a dollar—“cash money.” I do not believe that thus far, in the whole State, there has been one year with another raised more than five peaches for each person—this year there will not be more than two peaches for each.

N. C. M.

—We regret to hear so poor an account of the peach crop in Egypt, and the only thing that is satisfactory is the price—to the grower seven dollars a bushel ought to please him, even if the bushels are not abundant.

The crop is better hereaway, and we shall have plenty for our own use.

The more we look at peach culture in this part of the State, the brighter the prospect appears, and we may yet be tempted to set out an orchard for market purposes.

Notwithstanding the fine growth of the peach, and the splendid show of fruit at times in Egypt, there are numerous draw backs, and the crop is not so very certain to pay after all, though for a series of years it will do so. We are satisfied that this fruit has been overlooked in this part of the State, and we trust that it will hereafter receive more attention. With the planting of more timber belts, the climate will be more moist and better adapted to this fruit.

Ed.

Fruit Circular.

ALTON, ILL., July 20, 1863.

Editor Illinois Farmer, Champaign, Illinois :

I inclose herewith a fruit circular which I have prepared for the purpose of collecting facts in regard to the best varieties of fruits that have been tried in Illinois.

I am now sending it into all the counties of Illinois, to all persons whose names I can procure engaged in successful fruit culture. I find it difficult however to get the address of fit persons in each county, and would solicit, through your columns, the address of any fruit growers in our State, who may be willing to aid in the matter. It is especially desirable to procure names from the south-eastern and central counties from which I have been able to get but little information. A careful col-

lation and digest of the answers received will be made and the results published.

Very truly yours,

W. C. FLAGG,

Cor. Sec. Ill. State Hort. Society.

ALTON, MADISON COUNTY, ILL. }  
July 1st, 1863. }

SIR: Desirous of discussing and collating the results of the experience, thus far, of fruit growers in this State, I would respectfully call your attention to the subjoined queries, hoping that you will at your earliest convenience fill so many of the blanks as your experience or observation in your locality may enable you to do and return the lists to the above address.

W. C. FLAGG,

Cor. Sec. Ill. State Hort. Society.

APPLES.

The best ten varieties, in the order of their ripening, and the number of each you would plant in an orchard of

1,000 Trees for Profit.	100 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....
6.....	6.....
7.....	7.....
8.....	8.....
9.....	9.....
10.....	10.....

II PEARS.

The best 10 varieties, standard (s) or dwarf (d), in the order of their ripening, and the number of each you would plant in an orchard of

1,000 Trees for Profit.	100 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....
6.....	6.....
7.....	7.....
8.....	8.....
9.....	9.....
10.....	10.....

III PEACHES.

The best 10 varieties, in the order of their ripening, and the number of each you would plant in an orchard of

1,000 Trees for Profit.	100 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

6.....	6.....
7.....	7.....
8.....	8.....
9.....	9.....
10.....	10.....

IV. CHERRIES.

The best 5 varieties in the order of their ripening, and the number of each you would plant an orchard of

1,000 Trees for Profit.	100 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

V. PLUMS.

The best 5 varieties, in the order of their ripening, and the number of each you would plant in an orchard of

500 Trees for Profit.	50 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

VI. APRICOTS.

The best 3 varieties, in the order of their ripening, and the number of each you would plant in an orchard of

100 Trees for Profit.	10 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....

VII. NECTARINES.

The best 3 varieties, in the order of their ripening, and the number of each you would plant in an orchard of

100 Trees for Profit.	10 Trees for Taste.
1.....	1.....
2.....	2.....
3.....	3.....

VIII. QUINCES.

Best varieties tested.

IX. GRAPES.

Best 5 varieties, in the order of their ripening, and a number of each you would plant in a vineyard

FOR WINE.

1,000 Vines for Profit.	100 Vines for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

FOR TABLE USE.

1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

X. CURRANTS.

Best 5 varieties, in order of their ripening, and the number of each you would plant among

1,000 Bushes for Profit.	100 Bushes for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

XI. GOOSEBERIES.

Best 5 varieties, in the order of their ripening, and the number of each you would plant among

1,000 Bushes for Profit.	100 Pushes for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

XII. RASPBERRIES.

Best 5 varieties, in the order of their ripening, and the number of each you would plant among

1,000 Bushes for Profit.	100 Bushes for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

XIII. BLACKBERRIES.

Best varieties tested.

XIV. STRAWBERRIES.

Best 5 varieties, in the order of ripening, and number of each you would plant among

10,000 Plants for Profit.	1,000 Plants for Taste.
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

GENERAL OBSERVATIONS.

1. Your location, section, township, range and county.
2. Character of surface soil.
3. Character of sub-soil.
4. Native plants and trees of the locality.
5. Aspect of orchard, &c.
6. Elevation of orchard, &c.
7. Whether protected, and in which direction, by woods, hills, &c.

8. Whether the temperature is affected by proximity of water.
9. When the orchard, &c., were planted.
10. Method of propagation.
11. Method of planting.
12. Method of cultivation.
13. Method of pruning.
14. Method of picking.
15. Method of marketing.

—We give the above a place most cheerfully and trust it will gain a full response from all our fruit growing readers. The answer will find a place at as early a day as possible. We hope they will come in time to be available for autumn planting. We shall have more to say on this subject.

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## Miscellaneous.

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### Can We Grow Silk?

Certainly we can, and doubtless will do so after a few years. The silk furor which had so disastrous a run a few years since, was merely a speculative one for the sale of trees, and akin to the chicken oven that was to save the patient hens from a three weeks' incubation of her eggs. The hens continue to sit, and silk continues to come across the waters.

In other countries the silk worm is reared in small numbers by nearly every householder, pretty much in the way the chicken crop is, and when either of them are put under hot bed and oven heat they die out. Great henneries and great silk feeding establishments are alike out of place. They only thrive in a small way, and must be kept isolated. Nature has given them guaranties that capital shall not monopolize them, they are for the cottage, the small farm and for all who have room for a few trees, or a small plat of ground. We have no doubt that the mulberry will thrive remarkably well, and that the climate is suited to the silk-worm, but labor is too much in demand for the more active employments at present, and will continue to be so for years to come, to allow of the culture of silk to any great extent. Twenty years hence we may do something in this line, when the population has become more dense, and when every home is embowered in trees the enquiry may then arise if it will not pay to have a certain portion of them of the mulberry with which to feed the silk-worm.

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From the Ogle County Reporter.

### Crops.

We have lately conversed with many of our farmers in reference to the crop prospects, and

give the following information which we have thus obtained:

Fruit promises well, although the drought has somewhat stunted the smaller varieties.

Taking all our crops together, the prospects are much better than they have been since 1860, and the failure of one of our crops does not affect us so seriously as formerly, for the reason that our farmers have planted a greater variety of crops, and are every year learning the true secret of successful farming.

Winter wheat will yield a very large crop. Some fields are estimated at from forty to forty-five bushels to the acre, while a great majority will go thirty. It is entirely past danger, without a wet harvest time should prevent farmers from gathering it. Some pieces will be cut the first of next week, possibly by the last of this. There is three times as much of this grain growing as for any season for ten or twelve years—the past few seasons proving it to be a much surer crop than spring wheat.

Spring wheat has not yet passed the dangers incident to its ripening; but, should these be safely passed, the crop will only be an average one, at most. The dry weather of the past three weeks has stunted the straw and prevented the heads from filling properly, and in some fields the fly has made its appearance. There is considerable smut in some fields, as well as the red rust. Harvesting this crop will commence about the 10th of July.

Rye looks excellent, and will yield a very large crop. Many fields will be cut during the present week.

Oats stand well on the ground. The straw is large, and the heads give promise of a large yield. There is a large breadth of this grain growing, and the present prospects, with the present high prices make this a very important crop.

Corn looks well, not having been much affected by the drought. The warm weather of last week has made a very perceptible difference in its appearance. The present and coming month make corn, and with the present prospects, the promise of a good yield is very flattering.

Tobacco was nearly all set the first of the present week, although some fields were set last week. It is a little late, but we think the plants were better off in the bed, during the dry weather, than in the field. Much of that planted last week died. We should judge that there will be a hundred acres planted in this county, this season.

Potatoes and other root crops look well.

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From the Boston Cultivator.

### Cleaning Seeds.

The importance of clean seeds of all kinds is seldom appreciated. Too many farmers allow their grain and grass seed to become mixed with seeds of various species of pernicious plants, which being sown, not only lessen the crop it is wished to cultivate, but deteriorates its quality. By a little attention to cleaning all kinds of seeds, foul plants might to a great extent be got rid of. Some readers may recollect the statement of John Johnston in regard to eradicating chess from his wheat. He was very careful to have his seed wheat separated from every foul seed for several years, until a plant of chess on his farm could scarcely be found. Our attention was called, not long ago,

to some wheat which was offered for sale as seed. It was mixed with fine fowl seed, and had amongst it many small and imperfect grains. If it had been properly cleaned, the best of it would have been worth double the amount it sold for.

We have several times noticed various contrivances which Sanford Adams, of Boston, has invented for cleaning seed. He has lately constructed a winnowing mill in a manner somewhat different from anything of the kind before made. We will not attempt a description of it, but merely state some facts in regard to what it will do. It is so constructed that by changing the sieves in connection with some other modifications, almost any mixture of seeds can be separated, and each kind deposited by itself. As an example, we may mention that he received 326 bushels of what was called rye. It had been bought for making coffee; but as some ergot was seen amongst it, the purchaser concluded to have it cleaned before offering it for sale. Mr. Adams had it put through his new mill, and obtained 306 bushels 37 pounds of clean rye; 21 bushels 20 pounds of heavy oats; 6 bushels 23 pounds shriveled rye and oats; 1 bushel small, black, worthless seed; half a bushel of peas; 2 bushels 27 pounds of chaff; half a bushel of sticks and rags, and 8 pounds of pure ergot, which was sold to a druggist at \$1.50 per pound. It will be seen that the measure of the separated articles somewhat overran the original mixture, which is accounted for chiefly by the mixture of the articles being reckoned by weight, the standard for several of the lighter articles being less than that of rye.

In another case, 173 pounds of fowl seed and chaff were separated from 4,702 pounds of flax seed. In another case, a large lot of mustard from California was found to be in such condition that it was unmerchantable. Mr. Adams put 28,992 pounds of it through his mill, and turned out 27,829 pounds of mustard so clean and nice that it was shipped to England. The refuse consisted of fowl seed, a great portion of which was thistle seed, dust, chaff, &c.

—We have before made mention of Mr. Adam's "Bean Sorter," and are pleased to hear of his further success in this line. The common fanning mill, however valuable, will not accomplish all that is needed in that direction. We have one of Goodrich's mills, made at Aurora, probably the best in the State, at least the most complete in sieves and screens, yet we will not take out all the fowl seed.

Ed.

### More About Cuttings.

In a discussion by the Horticultural Society of Michigan, recently, the following suggestions were made by one of the experienced nurserymen present, which we print for the benefit of those not well posted in these matters:

"Rose cuttings, generally, are most sure to grow immediately after the flowering is over for the month. Geraniums grow at any season, also fuschias, verbenas, and other similar growing plants. Difficult woody plants require to have the new wood from which the cuttings are taken, well

ripened to insure growth. Pink pipings may be cut at any season. Generally speaking, all plants grow more readily just after blooming, and the best cuttings are taken from those shoots that have borne blooms. Usually it is well to leave a small part of the past year's growth on the cutting. Fuschias grow best from young shoots, also heliotropes and verbenas. Oleanders need to be rooted in water previous to planting in the earth; the roots are tender, and should be handled with care. Cactus requires drying a number of days before planting; those leaves that have flower buds, are said to bloom early, and also to continue flowering annually.

"Herbaceous plants root sooner when the stems are placed in water for a day. Equality of temperature and moisture is important to insure success. For this purpose glasses are placed over delicate cuttings; some prefer clear, others green glass. Cuttings generally require partial shading until roots form. The soil should be firmly pressed to the lowest point of the shoot, that the air may not penetrate and dry the embryo roots. Cuttings like the dew and moonlight, therefore the coverings of those placed in hot-beds should be removed, if the weather is moderate at sunset. The horizontal branches nearest the ground are much more apt to form roots than the upright ones."

### Illinois.

Mr. C. D. Wilber, of Bloomington, Ill., Secretary of the State Natural History Society, has just published a new and admirable Township map of Illinois, exhibiting its geology as well as its geography and topography. We gather therefrom the following facts:

Illinois, although admitted into the Union so late as 1818, is already the fourth in population of the States, and is rapidly increasing. Of its 55,000 square miles of area, no less than 35,000 are underlaid with bituminous coal, covering all the central and eastern counties. The north end of the State—all above a line drawn from Rock Island or Davenport eastward through Ottawa to a short distance beyond Morris, is coal bearing—thence the line of coal region bears east by south, then due south, and east by south again, so as to exclude Kankakee and most of Iroquois county. On the west the coal measures extend to within ten to twenty miles of the Mississippi, up to a point just above the mouth of the Iowa, whence the coal approaches within two or three miles of the river to a point just above Rock Island and the mouth of Rock River. The average thickness of the several coal strata is about 15 feet. The rocks below it are irregularly alternating strata of sandstone and limestone.

Illinois has no mountains, not many considerable hills, and scarcely an acre of waste land, while most of her soil is prairie of unsurpassed fertility, interspersed with woodland on the borders of her streams, and on some of the poorer uplands. Her "wet prairies" or swamps, as yet defy ordinary cultivation, but will ultimately be drained off at a moderate cost, and prove equal in productiveness to any other. Of her 35,459,200 acres, only 13,252,000 have as yet been brought under cultiva-



tion; and it is probable that her annual product is not yet one-fourth what it will be. When her immense and almost universal culture of Indian corn shall have been diversified by the extensive production of wool, flax, sugar (from sorghum and the beet,) tobacco, &c., as well as by the manufacturers, which her cheap food and in exhaustible fuel strongly invite, her labor will be far better rewarded than at present. Yet she had in 1860 no less than 1,711,758 inhabitants (rather more than one to every eight cultivated acres,) and her ag-

—The above we clip from the New York *Tribune*, a paper somewhat extensively read in this out of the way country. We have not as yet seen the map as the one destined for our sanctum, was retained to hand us personally during anniversary week at Bloomington, but being at the time at Vicksburg, we of course had to forego the pleasure of one at least. Shells are abundant at both places but the music attachment was only to be found at the latter. Had the sharp shooter who tried his hand at our red shirt four hundred yards, given his piece a little more elevation, we might not have been able to appreciate the map at this time, even if sent by express. Ed.

### Mr. Nice's Mode of Keeping Fruits.

Some years ago, Liebig discovered the analogy between the slow decay of vegetable substances and fermentation, and settled many things in reference to temperature, moisture and other circumstances under which these actions take place. Subsequent experiments confirmed the deductions of Liebig, and fixed the range of fermentation between 40° and 180° Fah. Appert, a French chemist, introduced the practice of heating vegetable substances to 180° or above, and at that temperature, excluding them from the air, and thus effectually preventing fermentation. This method has now become so common that it has nearly revolutionized this department of domestic economy.

Mr. Nice, of Greensburg, Ind., a few years since, conceived the idea of availing himself of the margin between the fermenting point (40°) and the freezing point below (32°). His first trouble was the presence of moisture in the atmosphere; this, however, he effectually remedied by the use of Chloride of Calcium, which, by absorbing the moisture, renders the air perfectly dry. Having obtained favorable results, he secured by patent his discovery. In the summer of 1860. Messrs. Fletcher, Williams & Vancamp erected in this city a large house for the purpose of testing the economical value of testing Mr. Nice's discoveries. As early as ice could be procured last winter, they put their house into operation. About one thousand bushels of apples, consisting of Bellflowers, R. I. Greenings, Rambos, Russets, etc., constituted the first experiment. These were put into market the following June, as perfect in every respect as when they were taken from the tree, and with a very trifling loss in quantity. Last summer, various experiments were made on small fruits, with very encouraging results. Raspberries and strawberries were kept eight weeks, after which they lost their flavor, though they showed no evident marks of decay.

Gooseberries, currants and cherries were kept in

good order for a longer period, giving evidence that, with proper care, they may be kept the year round. Peaches, in ten weeks, showed evidence of decay; the skin sloughing without material discoloration. Of pears, about two hundred and fifty bushels were housed, and are now in a fine state of preservation. Among these are the Sugar pear, the Bartlett, Seckel, Flemish Beauty, and several other varieties of summer and fall pears. Present appearances indicate that they will be sound next summer. Grapes that were in good condition when housed, have not in the slightest degree changed their appearance or flavor. A lot from the Cincinnati vineyards, that were much bruised in transportation, suffered loss for the first ten days after being deposited, but have undergone no sensible change since. The stock on hand is about one hundred and fifty bushels. I predict that the company will market grapes next June in good condition. Oranges, lemons, pine-apples, bananas and other tropical fruits, may be kept for months at any season of the year. Of the last crop of apples, two thousand five hundred bushels are on hand, in a most perfect state of preservation—the fall Pearmain, Maiden's Blush and Rambo keeping as well as the Newtown Pippin, or Romanite. A small lot of sample apples, of the fruitage of 1860, are on hand, looking well, and retaining their flavor in a remarkable degree.

The results thus far obtained, warrant us in concluding that in all climates where ice can be obtained, the standard fruits may be furnished at all seasons of the year, at prices which will bring this luxury within the reach of every family; thus largely increasing fruit consumption, and proportionately stimulating fruit culture.

T. T. BROWN.

From the Scientific American.

### Hopeful Characters of Inventions.

Many persons have supposed that most of the inventions which engross public attention at present are of a warlike character; hence they believe that improvements in the useful industrial arts are not so numerous as formerly. This is a mistaken notion. Of the one hundred and eighteen new inventions which are illustrated in the present volume of this paper, only four relate to purposes of warfare. Improved machines and devices relating to every branch of the industrial arts have been illustrated; among these are reapers, cultivators, cow-milkers, horse hay forks, churns, carts, lamps, water wheels, steam engines, bridges, screw jacks, wrenches, etc.; all of which afford evidence of the great variety of subjects to which the minds of our inventors have been directed. This is a most gratifying feature, because the prosperity of a country depends upon the progress of what are called "the peaceful industrial arts."

### The Consumption of Wool.

The consumption of wool in the United States during the past year has been unusually large, amounting in the aggregate to 126,000,000 pounds. The quantity of raw material required for army supplies alone, during the past year, is estimated at 50,000,000, for the navy 1,000,000, for civilians' wear 65,000,000, and the amount required to replace cotton, formerly incorporated to a much greater extent in mixed fabrics, 10,000,000 pounds.

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, JULY, 1863.

We owe our readers an apology for the late appearance of the June and July numbers. We had supposed when we left for Vicksburg on the 2d of June that the printers had sufficient copy for the June number. We only contemplated a ten day's absence, which was, from unavoidable circumstances, extended to near a month. All of that time we were too fully occupied with war matters to think of writing of rural matters, although in general we were somewhat "rural."

Since our return we found after the excitement of the trip was over—after the stimulant that kept us moving had been withdrawn, that writing was out of the question, and we have scarcely got rid of the bad effects of Yazoo and Mississippi water—had we made use of bad whisky with it, the case would have been much worse. During all that trip, ham bacon, bad potatoes, hot biscuit, and a sort of slop called coffee, was the staple of life, with the exception that when with the soldiers we had good coffee, good soft bread, and in some cases good beef. This sort of living to one whose diet is usually milk, vegetables and eggs, and not of a very robust habit will soon tell, and in our case it did so. We cannot be a soldier. But it did us good to go then; it gave us a better opinion of the noble men who are fighting for the Union, and a more contemptible one for traitors at home. Our country will be saved,—be patient gentle reader, give liberally of your good things through the Sanitary Commission for the sick, the wounded and hard working soldier, and all will go well.

COUNTY FAIRS.—A great deal of good has been accomplished with our county fairs, and yet there is a wide margin left for the willing workman in the field of progress. It is a matter of surprise to us that men of good sound practical common sense will allow themselves to play the boy when manhood could do much better. It is full time in the histories of these societies, that competitors and judges be treated as rational people and not as knaves or fools,—to make men stand upon their manhood instead of encouraging a sort of indirect cheating and lying. We clip from a late premium list some of the rules and regulations which are similar to others that we have seen:

1. No person shall act as judge who is directly or indirectly interested in the awards.

This is reasonable, for no one a party to a suit should sit on a jury to try the case.

2. No animal or article deemed unworthy shall be awarded a premium, (although the best on exhibition.)

This is another excellent rule and should be strictly enforced. Though if not enforced in some cases it might have a tendency to correct the evil by shaming others to compete, but the better way is to drive all unworthy objects from the fair grounds.

3. Any one attempting to influence the judges shall be excluded from competition.

If the above should read bribe for influence, we would say amen; but if it is to preclude any competitor to set forth to the committee the good points of his goods, we scout it as unworthy an honest and upright committee. We do not believe in hoodwinking a committee, and have them vote blindly. How would it look to shut a judge up in a wooden box to listen to the evidence of the witness and then try the cause without the hearing of council, but it is no more ridiculous than to blindfold the judges and then compel them to give in a true award of merit. The system is not only ruinous but stupid. Suppose three men, A., B. and C. compete on corn planters, how are judges to know which is the best by examining them for the first time at the fair. Would their judgment be warped to hear each owner explain the good points of his machine and wherein they excel his competitor. A field trial is out of the question and testimony must be taken to show who has the right, and the owner should not only be allowed his own statement, of the truthfulness of which the committee should be the judge, but bring in such other testimony as may be pertinent to the case. In the way the committee will be enabled to arrive at something like a correct conclusion, while under the foregoing rule it is but guess work. We would prefer to let competitors throw dice for the premiums than to leave it to a committee under the rule above. If Justice be blind why employ witnesses and council to enlighten him? We had supposed the allegory intended to convey the idea that she is impartial, but that she should not be deprived all the information of fact and how to enable her to be so, but in the case of a committee the rule supposes that they must have intuitive knowledge of the truth and thus jump at a conclusion without evidence. Year after year this stupid rule has been enforced at our fairs, to the disgust of all well meaning men, and behind which no small amount of villainy has been practiced.

The rule itself is an outrage on the integrity and intelligence of both the committee and the exhibitor, and unworthy a place where it stands—let it at once be kicked out to take its place among by-gone follies.

4. Awards shall be made to the number, and not to the name of owner or animal.

The inventor of the above should be fed on ginger pop during the entire fair, and have greed for the following week.

People go to the fair to see and be seen, a good corresponding rule would be to compel all the attendants to wear masks. This is decidedly in accordance with the spirit of the old *blue laws* which would not allow the mother to kiss her child on the Sabbath. It might be dispensed with at least among western people—set it aside with the rubbish.

5. In making awards to animals, it is recommended that judges have *no discussion*, but that, after a thorough examination, they proceed to vote by ballot until a decision is made.

Go it blind again. Jurys are incarcerated while making their verdict, but the privilege of comparing notes and views has not been taken from them, but the committee must vote on blindly until one party or the other comes off victorious. We often hear of the gag in political conventions and legislative assemblies, which generally ruins the party applying them, but here is a gag without benefit of clergy—pass this rule over among the fossil old rubbish of the dark ages.

When competitors and committees are brought together, the first are the parties litigant and the latter the court. Let them come up like men and try the equity, not the legal technicalities of the case, let there be a full hearing in open court, and the awards made like men who are responsible for their acts. We need a change, something that shall redeem the awarding committees from that disgrace in which they now stand.

No wonder that officers of societies who post up such rules are anxious to exclude the members of the press from making a close scrutiny of their acts and in every way snob them and bar the way to the real facts.

It is not long since when the executive committee of State society, made a great display of intuitive knowledge, snobbed the members of the press, voted the awards blindly, and afterwards made up a scale of points and arguments to bolster up their awards, but the report fell still-born on the public for the press had given the facts to the people months before, and their immaculate labors lie mouldering on the shelf. A star chamber trial was attempted but signally failed. Do

we wonder that agricultural societies are becoming unpopular, and is it not time that we have a change in the management, a straightforward, open, manly course, subject to be looked at with open eyes and to be discussed by all interested. We know that the great mass of these officers are honest, well meaning men, but too often hoodwinked by some plotting meddler who has some axe to grind, some friend to reward or enemy to punish.

The days of fiction and buffoonery should have an end and good common sense hold the reigns for a time, then we will see a change for the better, and these public institutions going on doing good and every year becoming more popular.

LUXURIES AT MEMPHIS.—When at Memphis we took occasion to ascertain the cost of meals at the restaurants and give them below.

BILL OF FARE JUNE 3.

Side Dishes.

Pickles.....	07
Olives.....	25
Sardines.....	25
Lobster Salad.....	50
Chicken Salad.....	50

Soup.

Mock Turtle.....	20
Vermicelli.....	15
Rice Tomatoes.....	15

Entree.

Beef, boiled.....	25
Beef, with Vegetables.....	40
Tenderloin Steak, plain.....	40
do do with Vegetables.....	50
Mutton Cutlett.....	25
Veal Chop.....	25
Spring Chicken.....	\$1.00
Chicken Crocket.....	40
Stewed Chicken.....	50
Stewed Giblet.....	25
Chicken Liver.....	40

Vegetables.

Spring Peas.....	40
Asparagus.....	40
Snap Beans.....	25
Tomatoes.....	25
Artichokes.....	25
Potatoes, every style.....	15
Lettuce Salad.....	25
Boiled Lettuce.....	15

Roast.

Beef.....	25
Mutton.....	25
Chicken.....	30

Dessert.

Raspberries and Cream.....	50
Strawberries and Cream.....	50
Cherry Pies.....	20

Orange and Apple.....	15
Cheese and Jellies.....	15
Cakes and Figs.....	15

Two of our party gobbled down three dollars and sixty cents worth to eke out a breakfast on the luxurious steamer City of Alton, the great crack boat of the Mississippi.

Editors could not indulge thus, and we had to only read of the good things as above.

**THE FRUIT CROP AND ORCHARDING.**—We have before stated that fruit trees entered last winter in a bad condition, with a tall spongy growth, similar to that of 1854, which was followed with such disastrous results, and had we such another winter with its sudden changes, orchardists would have been again in mourning.

We must therefore prepare ourselves for disappointment when the two unfavorable conditions arise—that is, a late spongy growth and a winter of severe cold, accompanied with sudden changes.

The second condition was wanting, and hence the disaster was avoided. But the trees were somewhat weakened, and at the time of blooming it required but little unfavorable weather to thin out the fruit, and this was done pretty effectually in most cases. The blooming was abundant, but the fruit crop on the whole will be below the average. It is true that another year has been added to the young orchards, many of which are bearing for the first time. In our own grounds, nearly all the trees that fruited last year have little fruit this, and though we shall on the whole have more fruit, yet a large share of it will be from trees bearing their first crop. This includes the apple and pear; the cherry and peach is very good, though the latter is not overloaded, and will need little thinning out.

Our orchard at Logan, near Chicago, has on a heavy crop, at least double that of last year, but the varieties are such as have stood almost all vicissitudes of weather. Of fifteen acres set to orchard in 1844 and 1846 of trees from Buffalo, nearly all have been replaced by the hardy sort, and now the orchard is in a good paying condition.

This orchard has been an expensive lesson to us, but of inestimable value, in its results. This year ten acres of it was sown to flax, and the crop of flax was sold on the ground for \$110. The same ten acres will yield probably six hundred bushels of apples which will make it pay very well. Two years ago it was heavily manured, and last fall re-filled with trees, the old trees having been set twenty-eight feet apart, we set in as many more, making them only fourteen feet apart one way and twenty-eight the other. The variety set was the

Keswick Codlin, a very upright grower, and which will need less than the usual space.

The peach crop is very good and the trees show no sign of blight as yet, though the Modlin has cracked badly, we have not seen it do so before, the trees are young and healthy and well cultivated, which we supposed conditions to ward off this disease.

The hard shell almond is loaded with fruit, and we shall have several bushels of the nuts.

Too little attention has been paid to planting of the Siberian crab; the fruit is valuable for preserves and makes a very superior vinegar while the tree at all times is highly ornamental.

The dry weather is having a decided influence on the size of the apple, and early fruits are not over two thirds the usual size.

Newly planted trees are suffering badly where not well watered or severely cut back at the time of planting.

¶ A very large number of orchard trees were set out last spring, many of them we fear will succumb to the severe drouth.

The autumn is much the best season to set out fruit trees in the central and southern part of the State, but in every instance they should be banked up, to prevent heaving out and from being swayed over by the wind.

**THE PRAIRIE FARMER.**—Our cotemporary we perceive is in a thriving condition, having donned a new dress, and new paper on the commencement of the half year. This not only betokens an improvement in the agricultural condition of the country, but in its general business. The demand for new and old implements has called out our workshops to advertise their wares which is one of the supports of a paper. The *Prairie Farmer* is published weekly at the Commercial Emporium of the West, and has therefore great facilities to gather up valuable material for its pages. We are satisfied that it would be to the advantage of all cultivators of the soil to invest more in this class of reading. We find most farmers taking one or more political and religious papers, while comparatively few take more than one agricultural paper. This is not good economy, for no farmer can take any agricultural paper from which he may not receive more benefit than it cost. The West has six agricultural journals, half of them weekly and the other half monthly. The weeklies indulge in miscellaneous reading to some extent by way of variety, while the monthlies have room for only practical rural matters. They represent the Northwest as a whole, yet the climate and soil is so varied in this large field, called the Northwest that they are



all needed in the several locations, and at this time all of them appear to be prosperous.

The card of the *Prairie Farmer* will be found in our advertising columns. It can be clubbed with the *ILLINOIS FARMER* at \$2,50. In the April No. the types made us say \$2,00, which is just fifty cents in error.

**RAIN AT LAST.**—After three weeks' praying, watching and waiting for rain; the ground parched; the grass withering; the foliage on the lower limbs of the trees dying; the crops, except perhaps wheat, suffering, rain came, though not heavy, yet hopeful. Who can account for the seeming lack of electricity in the atmosphere the present season? Some account for the absence of rain here by the heavy cannonading where the sieges and battles have lately occurred. This is an opportunity for philosophical speculation. Who of our readers will embark?—*Northern Illinoian*.

—Just no want of electricity at all, but on the contrary a superabundance. When the boiler is full of water there is no danger of an explosion and when the whole superincumbent air is charged with electricity, the equilibrium is established, and we hear no discharges, no rushing of the subtle fluid from cloud to cloud; the demon of the storm is at rest, and the storm cloud sails athwart the heavens in lazy mood. The power is on every side but there is no vacuum into which to send its lightning, to stir up mischief. The harvester can go on with his work nor fear aught from the thundergusts. Now and then a stray cloud from afar may sail into this vast sea of electricity, to be greeted with a low sullen growl, and in return shed a few drops of rain, but otherwise the great sea of this mysterious element will remain at rest. Had we a season as devoid of rain as the present, and the clouds flashing fire as they came into contact, vegetation would be withered, for the want of the evident fluid which now gives a healthy growth to almost all kinds of vegetation, notwithstanding the soil is so very dry.

**THE MARIETTA ROSE.**—For the last three years we have discarded this stock for the rose, and now grow them entirely on their own roots. The Marietta stock has always failed us. After the first year, if the roses do not die they certainly are less vigorous, and live at a half dying rate. We have but three or four left, and these require a deal of care in the way of looking after suckers, and keeping them cut back. Another winter will probably finish them up, and we shall be glad to see the last budded rose go out of our grounds.

A few roses will make better flowers on this stock the first year, but only for the first year. We advise our readers who wish good roses to be

careful to order all on their own roots, and pay for no others. It makes no difference how cheap they may be had, don't touch them at any price.

**THE COW MILKER.**—This appears to be what we predicted it would prove, a failure. It has had a great run in England and Scotland, but is rapidly falling into disfavor. It will not milk the cows clean, the finger pieces are not so readily fitted to the teats as was supposed, and unless they are made air tight will not work. All agree that when a cow is milked with them for any length of time, the yield of milk is decreased very materially. It is found difficult to milk kicking or restive cows.

**PRUNING THE GRAPE.**—Many people suppose that it is necessary to cut out the leaves of the grape that shade the fruit, this is a serious error, as the leaves are required to perfect the fruit, and so long as the leaves can have the sun the fruit does not need it. The grapes under the most dense shade of grape leaves are as sweet if not sweeter than those more exposed. The ends of the shoots can be cut back, but let the leaves alone.

**BUDDING.**—The budding season is now at hand. Any person can bud if he has a good sharp knife, some bass matting (inner bark of linn wood,) and an illustrated description in any of our fruit books. Branches one-fourth to half an inch are the proper size to bud. To insure growth. The buds must be mature, that is fully formed, and the bark must peel freely. Without these conditions it is useless to make the attempt. Peaches can be budded until late in September.

**LIVE AND DEAD WEIGHT OF SHEEP.**—A rule for mutton sheep is to weigh the live sheep and divide the amount by seven. Thus, a sheep weighing 140 pounds, divided by seven, would give 20 pounds dead weight, equal to the weight of a quarter, or 80 pounds for the mutton. The pelt and rough tallow would make about 20 pounds more, thus making what is called in the Boston market four quarters to the animal. Of course, sheep poorly or extra fattened will go above or below this average, but on the whole the rule is not far from correct.

**FLAX MACHINE.**—A new machine is now in use for breaking hemp and flax, by which the whole of the woody part of the stem is taken out without making any tow. It is worked with two horses attached to any ordinary horse power. Its cost we have not learned as yet.



**RURAL NEW YORKER.**—We are indebted to this valuable journal for the cut of our old friend and fellow worker Dr. J. A. KENNICOTT. The engraving was made over a year since, and was intended to be used on a different occasion, but we cannot control the ways of providence. The impression is much too dark, but we hope the printer will modify it, if possible by having it planed down a trifle.


By the way, the *Rural* has become pretty well Westernized within the past year. Those who wish to see can address D. D. T. Moore, Rochester, N. Y., or club it with the *FARMER* at \$2.50.


**A MANUAL OF FLAX CULTURE.**—We have the above with the compliments of C. D. Bragdon, Western editor of Moore's *Rural New-Yorker*. The work is published at that office at twenty-five cents—sent by mail. It contains forty-eight pages of closely printed matter with numerous engravings. It is probably the most practical work of the kind extant. Those in the flax business, whether growers or manufacturers, should send for the work without delay.

Address, D. D. T. MOORE,  
Rochester, N. Y.

**WILLSON'S STRAWBERRIES.**—The last of May we received from G. H. Baker of South Pass (Cobden Station), a case of six boxes of Willson's Albany strawberries. Unfortunately we were absent from home at the time of their arrival. Yet, a dish of them, drenched in sugar, awaited our return, which was nearly a week after the picking, thus showing what we have before said of this variety, that it is the most valuable one for shipping long distances, and we doubt if our Cobden friends will find a substitute for it. The fruit this year is medium in size, and we think less acid than usual.

**J. M. REDMOND & SON.**—The card of these gentlemen has been mislaid—it should have appeared in the June number. Mr. Redmond has for a long time been connected with the Land Department of the Illinois Central R. R., first as Treasurer but more recently as Commissioner, in which capacity he has earned a most excellent reputation for promptness and fidelity in the discharge of his duties. He has associated his son with him in the Land Commission business. We feel assured that all who intrust business in their care will be fully satisfied with their ability.

 A Boston paper says it is William Macready, the painter, and not Macready, the actor, who has recently deceased.

 Mrs. Morgan, the mother of the notorious guerrilla, John Morgan, arrived in Cincinnati last Friday, from Lexington, Ky. She has gone there to see, if possible, her sons.

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## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

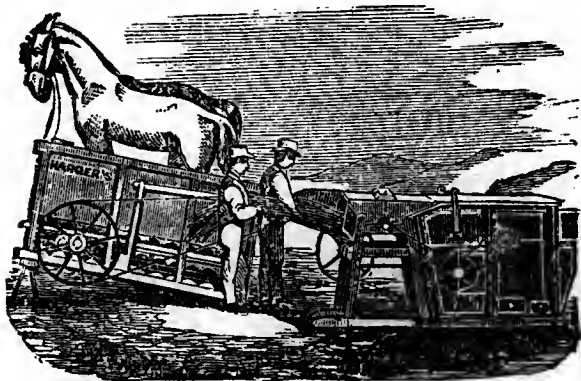
BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

## Advertisements.

**BUY THE BEST!—**

**IT IS THE CHEAPEST IN THE END!**



The Railway Horse Power which took the

**FIRST PREMIUM**

AT THE

## New York State Fairs of 1861 & 1862.

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others! This, they believe, cannot be said of any other Power exhibited at an equal number of Fairs.

**COMBINED THRESHERS AND CLEANERS,**

**Threshers, Separators, Wood Saws, &c.**

All of the best in market.

These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of horses, being only about  $1\frac{1}{8}$  miles per hour when doing a good fair business, which is about 300 to 500 bushels of oats per day, or half that quantity of wheat or rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business, without waste or clogging, than any other two horse cleaner before the public.

For price and description send for circular, and satisfy yourself before purchasing. Address

R. & M. HARDER,  
je2m\* Cobleskill, Schoharie Co., N. Y.

**Sanford & Mallory's Flax and Hemp Machines.**

These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address

NELSON STILLMAN,  
General Agent, Chicago, Ill.

P. O. Box 5823.

May 1863.

## MALTESE JACKS.

TWO just imported from the Island of Malta, selected with great care for breeding purposes. They are three years old, 14 and  $15\frac{1}{2}$  hands high.

Address, S. B. CARUANA,  
71 Pine street.  
E. C. ESTES,  
73 Hudson street.

New York, May 14.1m

## EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5.00

NORWAY SPRUCE, three years  
old, six to nine inches, \$8.00

SCOTCH PINE, two years old,  
three to five inches, \$7.00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARVITÆ, &c., &c., of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the best varieties for the West.

A large stock of RED DUTCH CURRANTS, the best for market, two to three years old, at half the usual rates.

STANDARD AND DWARF PEARS, of well tested varieties, together with a good assortment of Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
WAUKEGAN, ILL.

ROBT. DOUGLAS:  
if

## TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD. \$55 per 1,000.

A few thousand of bearing age, of large size at  
\$75 per 1,000.

These will produce a good crop the second year.

HARTFORD PROLIFIC, \$10 per 1,00, or  
ten for a dollar.

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DIANA, \$10 per 100

The above will be well packed,  
to go any distance.

TERMS—Cash, or approved bank paper of short date.

JAMES SMITH.

DES MOINES IOWA, Jan. 1, 1863.

# BURSON'S AMERICAN GRAIN BINDER.

THIS IMPORTANT LABOR-SAVING IMPLEMENT IS NOW BEING BUILT FOR THE FOURTH  
HARVEST.

During the last three Harvests we have worked it upon nearly all the different styles of Reapers in use, in all kinds of grain, and under every variety of circumstances in which such an implement could be placed and have never failed to demonstrate that

ONE MAN COULD BIND THE REAPER SWATH AS FAST AS CUT.

## ITS RECEPTION AT THE DIXON TRIAL.

*The eager, pressing throng, gave ample ample reverberating evidence of their approbation, and anything I can do to further your worthy efforts, shall be willingly done.—Extract from a private letter to us from the Hon. H. W. VanEpps, President of the I. S. A. S.*

*It drew the attention from everything else, and when it first started into the grain the crowd could not be restrained from rushing after and almost over it.—From the Prairie Farmer.*

*The great feature of the day, which never failed to draw the crowd, was the Grain Binder of W. W. Burson.—Chicago Tribune.*

MANUFACTURED FOR THE PROPRIETORS BY

# EMERSON & COMPANY,

FAVORABLY KNOWN THROUGHOUT THE WEST AS THE MANUFACTURERS OF THE

JOHN H. MANNY REAPER,

ROCKFORD.....ILLINOIS.

THE IMPROVEMENTS FOR 1863 HAVE ADDED 50 PER CENT. TO THE CAPACITY OF THE  
BINDER!

For the benefit of those who used or saw in use our Binder last harvest, we specify,

1st. The arm is lengthened, reaching from 6 to 8 inches further over the platform.

2d. The improved movement by which the wire is held nearly perpendicular.

3d. A SELF ACTING REEL which draws the wire tightly around the sheaf of any diameter, from three to thirteen inches, without the aid of the hand.

*For further particulars address*

W. W. & H. M. BURSON,  
ROCKFORD, ILLINOIS.

N. B.—Those wishing a new Keaper and Binder should address EMERSON & CO. direct, as they are  
licensed to attach and sell upon their Reaper.

## GENUINE TREE COTTON SEED.

A limited quantity of the above seed can now be obtained if applied for soon, of

**EDWARD TATNALL, Jr.,**

Brandywine Nurseries,  
WILMINGTON, - DELAWARE.

This seed was procured at considerable expense by William Ferris, of the above city, from the mountain regions of South America, having been conveyed thence by mule, "seven days journey" to Guayaquil, where this gentleman resided nearly three years, and made himself acquainted with the fact that this cotton thrives, and is cultivated on the elevated lands of the Andes, of which it is a native. His object was to introduce it into our Northern and Western States, believing if it would stand their climate (and where it now grows it is frequently covered with snow and ice) it would prove a source of great interest and profit to the people of those States.

As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State.

Apr 2m

## WANTED. KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$50. Weight 45 pound. Freight from 50 cents to \$1 50. Send for circular and samples, (send stamps.)

BRANSON & ELLIOT,  
General Agents,  
Apr '63 1y 120 Lake street, Chicago, Ill.

## H O V E Y ' S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Nov 1862 No. 194, Lake st., Chicago Ill.

## BLOOMINGTON NURSERY. BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees  
200 NAMED SORTS TULIPS, ALSO HYACINTHS  
Crocus, and a general assortment of Bulbs  
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Nursery stock, Evergreens, Greenhouse and garden  
plants—all at wholesale and retail at lowest cash  
rates.

For particulars see Catalogues or address subscriber.  
Bloomington, Ill., Aug. 1, 1859. F. K. PHENIX.

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

Address, M. L. DUNLAP,  
Champaign.

March 1, 1863.tf

## GEORGE S. THOMPSON,

Late of Com. Gen.'s Office,  
Attorney for U. S. Military Claims,  
West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House  
of Messrs. N. H. Ridgely & Co.

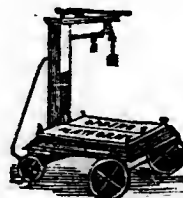
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August, 1862.tf



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STANDARD  
**S C A L E S**  
OF ALL KINDS.

Also, Warehouse Trucks, Letter Presses, &c.  
**FAIRBANKS, GREENLEAF & CO.**  
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Be careful and buy only the genuine. **E. B. PEASE,**  
June 1y



# The Illinois Farmer,

A MONTHLY JOURNAL OF

## AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

**TERMS IN ADVANCE.**—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside. The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it. Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign, Illinois.

All business letters are to be directed to the publishers, Springfield.

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One square of ten lines.....	1	2	4	7
card of five lines one year.....				\$5 00
Ten cents a line for less than a square each insertion.				

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

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BAILHACHE & BAKER, Publishers,  
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Twenty " ".....	20 00

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## APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
1sq3m Pulaski, Oswego co., N. Y.

## A GOOD INVESTMENT.

ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

GENERAL AGRICULTURE,  
STOCK RAISING,  
HORTICULTURE and POMOLOGY,  
And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

### LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

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The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

### CONTENTS.

About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

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# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., AUG., 1863.

NO. 8.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

✍ EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\*\*\* For terms see prospectus and special notices in advertising department.

### August.

Sultry and more sultry come the days until August becomes seared, browned, and many of the fields no longer wear the deep green that so lately met the eye on every hand. The barley, the wheat, the flax and the oats, have gone into mows or pyramids, taking a sweat ready for the thresher. The timothy and clover have long since been housed, and the stubble is making a rally for autumn feed. The orchard is just beginning to turn over its ripened gifts. The Red June, Early Harvest, Red Astrachard, Sweet Jenett, and Yellow Injestin, are among its orbe like flavors, that find a place on the table and in the capacious pockets of the little ones.

Since the first day of July, the Keswick Codlin has filled an important place in the way of pie and sauce, and for two months it will scarcely find a rival in that department.

On the 29th of May, the first dish of strawberries came upon our table—no homœopathic prescription, but three rounded quarts, and just one month, to wit, on the 28th day of June, they departed at the tea table—daily meal, and after meal, had the heaping dishes borne testimony that the little fingers had been busy in the gathering.

What next; shall we come back to to the dried fruits, and diet on tavern fare? by no means, for the next day after the disappearance of the strawberry, the same dish was heaped as high with rich and tempting black caps and purple cams. The abundant yield of the strawberry had corrected the system as well as pleased the appetite, and the change in flavor to the raspberry is most acceptable. Grateful, indeed, to the five invalids suffering with the whooping cough, in its worst form, was the more mild flavor of this invaluable fruit, and during its season was their almost exclusive food.

The season of the black cap is short—two weeks and the bushes were nearly bare, though a month's drouth has doubtless hastened their short season—not so of the purple cam which will make up a full month, or far into the season of the blackberry.

And now, out on the prairie, full four miles from timber, we must close the season of small fruits—not so fast, gentle reader; you have forgotten that ripe currants and ripe gooseberries can be had, and what is better yet, blackberries are loaded down with thin red and sable fruit. But to make sure that the line of succession may not be broken, the express man hands over a large basket of rich blackberries, fresh from the fields of Egypt—large, rich, and black as Ethiop. We have friends in Egypt; the editor is not forgotten—the remembrance is from Mrs. Lieut. J. M. HUNTER, of Ashley, and the berries are from the borders of the groves along which are planted large fields of tobacco, of cotton and of corn. We trust our better half will not be jealous, as this is not the first favor from the hands of our lady friends away away down in Egypt. To one of them was due the first strawberries, and we are quite sure that one of them will send us the first basket of ripe peaches. And now, this 18th of July, the same measure is heaped with great glistening blackberries, and the pantry well stocked with pies of the same for the Sunday meal. Are they Lawton's? No, but from plants marked in the fruit season when loaded with great rich berries, and the plants shipped to us from South Pass, far down among the fruit hills in Egypt.

We shall have several bushels of the Lawton, and at the close of the busy season shall have more to say of their relative merits. Who will dare to say that the small fruits are not the great fruits after all. The time is not distant when they will occupy an important place in every garden.

We have sold enough of our surplus

of small fruits to pay the full cost of the plantation and the picking for this season, and have had our supply gratis, which for a family of fourteen persons, with a sharp sprinkling of visitors, is no small amount. What is the use of staying on a farm when we can live on it just as well?

The ears of the early sweet corn is fast forming, and yesterday, the 17th, we picked the first ripe tomatoes. Cabbage, cauliflowers and other vegetables have been abundant for weeks.

The melons and squashes are doing well—thanks to Hovey's seed store for a barrel of plaster with which to drive off the striped bug; two or three dashes of it when the dew was on, compelled them to leave, and we further suspect that it has been otherwise beneficial to the plants, through all this dry weather. Hovey's draft for a lot of melons will be duly honored.

The crops, on the whole, this season, will be lighter than usual. The soaking rains of winter and early spring, inducing a cloddy condition of the soil, the drought of summer, have all conspired to this end. But farmers buoyant with hope, high prices, an unusual small show of weeds, and the brighter look of the war, all of which have their value and inspire confidence.

The paying of debts, reduction of interest, and the study of economy in labor and expense, have done much to place the cultivators of the soil on a sure foundation. The desire to own all the land that adjoins him, has lost some of its attractions since the introduction of new taxes, and the same reason will induce the selling of lands held on speculation at more reasonable figures.

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“Never trust thine enemy.”

## Poetry.

### Life's Answer.

BY THE DEAN OF CATERBURY.

I know not if the dark or bright  
Shall be my lot;  
If that wherein my hopes delight  
Be best, or not.

It may be mine to drag for years  
Toil's heavy chain;  
Or day and night my meat be tears  
On bed of pain.

Dear faces may surround my hearth  
With smiles and glee;  
Or I may dwell alone, and mirth  
Be strange to be.

My bark is wafted to the strand  
By breath Divine;  
And on the helm there rests a hand  
Other than mine.

One who has known in storms to sail,  
I have on board;  
Above the raving of the gale,  
I hear my Lord.

He holds me when the billows smite—  
I shall not fall.

If sharp, 'tis short; if long, 'tis light:  
He tempers all.

Safe to the land, safe to the land—  
The end is this:  
And thou with Him go hand in hand  
Far into bliss.

### Spring Voices.

"Caw, caw!" says the crow,  
"Spring has come again, I know,  
For, as sure as I am born,  
There's a farmer planting corn.  
I shall breakfast there, I trow,  
Ere his corn begins to grow."

"Quack, quack!" says the duck,  
"Was there ever such good luck?  
Spring has clear'd this pond of ice,  
By her magic, in a trice,  
Just as Goodman Drake and I  
Its surface wished to try."

### Illinois State Horticultural Fair,

TO BE HELD AT

ROCKFORD, SEPT. 8TH, 9TH, 10TH, and 11TH, 1863.

Send for a Premium List, to

W. C. FLAGG, ALTON.

## Agriculture.

### Culture of Hops.

A large amount of hops are consumed in this and adjoining State, mostly the produce of one or two counties in New York, Otsego being the largest contributor. We see no reason why this crop would not pay with us. A few acres of white willow would keep up a supply of poles for a large yard. The American Larch grows rapidly in our low grounds and makes a firm hop pole. The plants can be had cheaply and are easily cultivated. Set them four feet apart and cultivate for two or three years and they will then take care of themselves. Hemlock poles are principally used in the New York hop yards; but these do not last over six or seven years. Certainly the white willow would do as well; the wood is light to handle and its rapid growth would make it cheap. Will not some of our farmers make arrangements to go into the business. We received some plants last spring said to be of superior quality, and among them also the staminate plant. In consequence of the dry weather succeeding the setting out most of them were lost.

We copy the following article written by D. B. Shopley of Madison county, New York, from the *Country Gentleman*:

The successful cultivation of the hop implies watchful and incessant care during the first stages of its growth. They should be planted upon a warm, deep, loamy soil, on a dry bottom, which is best found upon a sandy, gravelly or stony porous subsoil, affording drainage from off and about the roots of the plants during the rainy and frozen season of the year. Hops are one of the most exhausting among cultivated plants, both in respect to the organic and mineral constituents which are extracted from the soil. Therefore rotation of crops should not extend more than four years on the same ground, unless the soil is supplied with that which the hops most extract. In comparing the table of analysis, we find that both lime and potash enter largely into the growth of both the plant and hop.

The usual mode of planting is to lay out the ground in rows 7 and 8 feet asunder. The best and quickest way to proceed in laying out the ground is to use a horse and a corn marker, by having the pins in the marker 7 feet, the distance required for the rows one way. Marking the rows the other way is usually done by stretching a rope the distance desired, at which time the setting is done by the guide of the rope, by setting the hill where the rope crosses the mark made by the corn marker. The setting is done the first of May, by setting the roots of the previous year's growth, called runners, which are carefully selected so as to get healthy roots, which are cut into pieces with two sets of eyes to each section—setting them with a dibble in the ground, with five sets in a hill, setting one at each corner of a square, six

inches, and the fifth in the centre of the square, all in an upright position, with the eye buds pointing upwards, and all beneath the surface of the earth at least one inch. In the planting there should be much attention paid to the introduction of a sufficient number of the male plants, one hill in two hundred or about five on an acre. They ought to be planted at regular and known intervals, so that in subsequent years they may not become indiscriminately mixed. The first year, planting is usually done with corn, taking care not to encumber the hop hil; the after culture the same as for the accompanying crop of corn. As the corn matures and is fit for cutting up there should be much care taken not to cut the hop vine, which would be very likely to bleed so as to injure the hill.

In the succeeding month of October, or the first of November, there should be placed over each hill of hops at least one or more good shovels of well rotted manure for winter protection, and to enrich the ground for the benefit of the plant the succeeding season culture, which requires more care and watchfulness than the first year to secure a good crop of hops.

As soon as the plants make their appearance above the ground the manure should be carefully spread over the hill. Then the poles are introduced, varying from 18 to 20 feet long, with two at each hill, and inserted in the ground in perfectly straight lines upon each row, an incision being made with the hop bar in the ground to a depth required for firmly holding the poles. Then the plowing commences, which is done with one horse, having the plow kept clean, beginning in the centre of the rows, turning the furrow from the hill the first time plowing—subsequent plowings the furrows should be turned towards the hill.

The cultivator is used after each plowing to level and pulverize the earth, which should be kept smooth and level at all times. The process of hoeing the first time is done as near as may be at the same time as the first hoeing of corn. The vine is usually tied up before the second hoeing, or as soon as the vine has grown two or three feet in height; they are tied by selecting two of the most even vines for each pole, the strong, rank ones being selected, and subsequently tied until sufficient strength is acquired in the vine to force itself up to the summit for the production of its flower. The culture in the meantime is performed with the plow and cultivator and hoe, earthing up the hill a little the second time hoeing, keeping the ground clean and pruning the hills. Never suffer but two vines to grow upon each pole, which are preferable to a greater number. It may be here remarked that hops want richness of soil, which should be kept up in order to be a successful grower. Leached ashes is a good substitute for potash, applied to the hill after the first hoeing. When it is found to be important to use lime, it should be well slaked, half a shovel thinly applied to a hill in the month of October or the first of November. When lime is used, much should be applied to the hill, in the place of manure, for winter protection. Salt has also been found to be a good fertilizer when the vine is disinclined to run the pole; by making a brine and applying it in small quantity to the hill, it acts like a charm in facilitating the vine in running the pole. I have practically used them all, and found the productions good.

Picking usually commences about the first of September; as the flower becomes hard, with a bright yellow color on opening it, the envelope of the seeds a purple color, and the kernel or seed itself hard, they are ready for the harvest. Picking is mostly performed by women with aid of men's help to extract the poles from the ground, severing the vine some three feet above the ground, and placing them upon a frame over a box, which is subdivided into four apartments, and accommodate as many pickers, with each a box three feet long, two feet deep, and eighteen inches wide, each picker filling the box two or three times during the day, for which they receive from twenty to twenty-five cents per box.

**DRYING.**—The kiln for the operation of drying should be constructed with much care, with stoves, and arranged in the room, and the hops spread upon a cloth floor above resting upon slats, where they dry in about twelve or fourteen hours. Hops in the green state, if left standing long after picked, are liable to become heated and change color, hence the kiln should be made sufficiently large for curing as fast as picked, at intervals of twelve to fourteen hours for each kiln.

### Burson's Grain Binder.

We had the pleasure of witnessing the operation of this important labor saving implement upon the farm of Michael Phelps, Esq., near this place.—Arriving on the ground, we found a large crowd of our citizens and farmers watching the operation with intense interest, all seeming pleased, satisfied and delighted. We would not attempt to describe this unique machine which most of our readers will have an opportunity of examining while at work in the harvest field. The Binder is placed upon a small extension of the Reaper platform, has no connection with the gearing of the Reaper but is worked by hand. But three motions are required to bind a sheaf—to raise the handle or lever when the gavel is brought up by the Forker to push down the same handle which puts the band around the sheaf, when one turn of the crank fastens the band around the sheaf, cuts it off, and leaves one end of the wire fastened ready for the next sheaf. The grain is shoved to the Binder with an ingenious Clasp Fork with which the Forker puts the grain into the Binder in good order, and we are told by those using the machine that this Fork is considered almost indispensable in getting the grain to the Binder in shape for binding. However this may be, one thing is certain, that with this Fork the grain is delivered to the binder in neat gavels without difficulty. The following conclusions were unanimous among the crowd in attendance;

1. That the Binder will work fast enough, at least it looked like play binding a six feet swath.
2. That the grain can be saved much cleaner than in hand binding.
3. That it is not hard work to use the Binder; all that we conversed with saying they would much rather work it than by hand.
4. That it does not add much to the draft of the Reaper. Mr. Phelps was working it on a six feet J. H. Manny with two horses, without fatigue.

The Binder is manufactured by Emerson & Co., of Rockford, Ills., favorably known throughout the West in connection with the J. H. Manny



Reaper, who sent to our enterprise Thresher Manufacturers, Messrs. Harrison & Co., their agents, a number of these Binders, which being made and warranted by so well established a firm, were taken hold of by our best farmers, and cash orders are now urged upon the agents who are unable to supply any more. We certainly congratulate our farmers upon their happy escape from the hardest work of the harvest field. Our farmers will, of course, look out in time for next harvest.—*Belleville Dem. June 13.*

In a letter from Messrs. Burson, they say, "Direct your men in working the binder to be careful to have the crank in the spring-catch when the lever is raised and lowered, and to always bring the arm entirely down and hold it down while the crank is being turned. The tightening cord will act much more effectually upon the green grain if you will tie the cord down close to the offset of the arm and by filing the corner a little and wrapping it with wire. We shall in future have two holes, one close to the offset of the arm for green grain, and one back further for ripe light grain."

We learn that the demand for binders is beyond the supply, and that persons ordering must take their turn. Another year this will not be the case.

### Blood for Manure.

There is in London what is called the Patent Nitro-Phosphate or Blood Manure Company. It is said to consist of tenant farmers occupying upward of 30,000 acres of land. It may have originated in this manner, but we observe in its present list of trustees the names of several members of Parliament.

The distinguishing feature claimed for the blood manure is, that while it possesses soluble phosphates in more than usual abundance, it is incorporated with a large quantity of animal matter yielding nitrogenous and carbonaceous constituents. It is manufactured by casting the blood into boiling water for the purpose of coagulating it, after which it is pressed and dried making a soluble mass. It is sometimes mixed with an equal weight of ashes or the mold, and sometimes applied without mixture at the rate of from two to four hundred pound per acre. It is recommended for wheat, barley, oats, beans, peas, potatoes, grass and turnips. It is said to produce satisfactory results. Indeed, on the ground that the chemical analyses of blood and the grain of wheat are nearly identical, it is claimed that blood is the essence of vegetable as well as animal life.

The company has a monopoly of the blood of the beasts slaughtered in London, from which it secures the annual aggregate of 771,000 gallons.

In its best form this manure is sold at about thirty-seven and a half dollars per ton, or ten dollars higher than the superphosphates of lime.

A company in Chicago is about undertaking the enterprise of manufacturing a similar product for the English market.—*N. W. C. Advocate.*

### Clover Hay--How to Cure It.

The clovers are justly considered as among the best and most valuable of the cultivated grasses.

Yet owing to an error in cutting and curing them, a very considerable portion of the rich nutritive matter they contain is lost. I have now a mow of red clover sparsely intermixed with which are small quantities of white clover, red-top and herds grass, which was cut when the honey suckle was in full bloom, and made in grass cock, according to the rules laid down some time since in the columns of your paper, for curing this kind of hay. I must say, that although I had not much faith in the matter at first, the result has fully proved the correctness of the writers views, and that I no longer doubt the theory upon which the practice is based.

If clover is cut when in bloom, and permitted to remain undisturbed in the swath till the forenoon of the second day, and then turned, exposing the under and unwilted side to the sun for a few hours, and then pitched into cocks of sixty pounds weight, cured hay, and there allowed to stand till cured, the hay will be heavier, brighter, of better flavor, and possessed of far greater nourishment than hay of the same kind made in the ordinary manner. The leaves and fine heads, which are inevitably lost by drying in the ordinary way, in consequence of their brittleness when dried, are in this way preserved. The flavor of the hay is also vastly superior. One ton of good clover made in this way, is worth, for feeding, two tons dried in the old way, and deprived by turning, spreading and filching, of its heads and leaves. The fermentation which it undergoes in the cock is never sufficiently vigorous to dissipate any of the alimentary properties, and is rarely sufficient to be perceptible by the hand. That the heat is very moderate is sufficiently attested by the fact that the color, not only of the foliage, which is naturally of a deep and vivid green, but the bright crimson of the flowers is retained, which would not be the case were the fermentation as vigorous as many would lead us to believe. Any grass cured in this way will be more nutritive, of better color and greater weight than the same grass made in the old way.—*Cor. Germantown Tel.*

### Good Tillage is Manure.

Farmers do not generally realize the fact, that good clean tillage is about equal to an application of manure to lands slovenly cultivated. We all know how much larger crops we realize in the garden than upon the farm, just from the superior attention paid to it in cleansing the ground of all noxious vegetation and frequently hoeing and otherwise stirring the soil. The *Genesee Farmer* makes some useful remarks on this subject, as follows:

"We must more than ever before, realize the fact that 'tillage is manure'—that the literal meaning of the word 'manure' (*manus*, hand, and *ovner*, to work,) is hand labor. To manure the land is to hoe, to dig, to stir the soil, to expose it to the atmosphere, to plow, to harrow, to cultivate. The ancient Romans made Stercutius a god because he discovered that the droppings of animals had the same effect in enriching the soil as to hoe it. We can leave the modern method of manuring land to our Western farmers, while we go back to the original method of stirring the soil. Mr. Lawes has raised a good crop of wheat every season for over twenty years on the same land, by simply

keeping it thoroughly clean by two plowings in the fall and by hoeing the wheat in spring by hand. The Rev. S. Smith of Lois-Weeden, has for years raised successive crops of wheat by a process of trenching the land with a fork and by hand-hoeing. We do not advocate this system, but the principle is applicable to our case. We can manure our land by better tillage."

## Monthly Report of the Condition of the Crops for May and June, 1863.

DEPARTMENT OF AGRICULTURE,  
WASHINGTON, July 10, 1863.

The Agricultural Department, in issuing its first monthly report of the condition of the crops, desires to make known its *purposes* in preparing these reports, and the *means* it has adopted to collect the information embraced in them.

1. No nation has ever developed such agricultural resources as the United States, whether the amount and the variety of its products, or their relations to manufactures and commerce, are considered. The amount of the capital it has invested in lands and farming implements is nearly seven billions of dollars, producing an annual value of two and a half billions of the population of the United States. Its products are not only those cereals and animals from which our breadstuffs and meats are obtained, but embrace also those textile materials that sustain not only our own manufacturing industry, but the great cotton manufactures of the world. Hence our manufacturing industry has been created by, and is dependent on, our agriculture. The capital invested in our manufactures exceeds two billions of dollars, yielding an annual product not much less in value. This diversified industry has created a commerce of not less proportionate magnitude, which, employed in distributing these provisions and materials and manufactures, uses as its means of travel and transportation railroads, canals, and river improvements, costing two and a half billions of dollars, and employs a tonnage in value about two hundred and twenty-five millions of dollars. Such are the gigantic operations of American industry, making its national inventory one of the most extraordinary records of progress the world has ever beheld.

Nor is this all. The wants of Europe have established a great and rapidly increasing dependence upon the United States for its agricultural products. This is seen in the magnitude of the exportation of these, even when civil war has closed so many ports, and paralyzed the agriculture of so large a portion of the country. The world leans on us.

To meet demands of this great magnitude is the mission of American agriculture. The merchant and the manufacturer, the operative in the factory and the mechanic in the shop, those at home and those abroad—all, as much as the farmer, cannot but feel deeply interested in the monthly report of the progress of an agriculture upon which these classes depend.

Statistical information is collected slowly, and generally not published until the immediate interest in them has passed away. Thus, for instance, the American Almanac, an annual statistical publication of the highest authority, does not generally

bring its statistics nearer than two years of the time of its publication. Even the imports and exports of the United States are not made generally known by the Treasury Department until eighteen months after the close of the fiscal year. In the meantime the vast crops have been sown and harvested and sold, with no reliable information of their amount, save what certain interests obtain through agencies, in which the public are not regarded as having any concern nor any right to the information they give.

This is unjust to the industrial pursuits of our country. Those who produce, and those who consume, have interests as well as the purchaser who stands between them. A knowledge of the market is essential for all, and this market is governed by supply and demand.

The relations between agriculture, manufactures, and commerce, demand that something should be done to obtain and publish, at brief intervals during the crop season, reliable information of the amount and condition of these crops. The connexion between the industrial pursuits creates mutual interests. There is no clearer principle of political economy than this, that as the farmer is enriched all other classes prosper. His pursuit, as stated, embraces two-thirds of our population—the great body of consumers of manufactured products—and of these he buys in proportion as his own occupation gives him the means. Hence, the more he consumes the greater is the demand for manufactures. The office of commerce being to interchange the products of agriculture and manufacture between their respective consumers, it, too, prospers in proportion as the farmer and operative thrive. Individuals, however, do not regard the common welfare, but are constantly impelled by self-interest to take from it to enrich themselves. Hence commercial speculations are common where general ignorance prevails of the true conditions of supply and demand. Every public interest is injuriously affected through this self-aggrandizement. The Wall street speculations in gold, which led Congress to enact the first law ever passed in this country to regulate *discounts*, are not the only instances where individual gain disregarded the public good.

Ignorance of the state of our crops invariably leads to speculation, in which oftentimes, the farmer does not obtain just prices, and by which the consumer is not benefitted. The interests of labor, therefore, demand that the true condition of these crops should be made known. Such knowledge, whilst it tends to discourage speculation, gives to commerce a more uniform, and consequently, a more healthy action. Its influence on manufactures is not less beneficial. The probable supply of textile material directs the extent of manufacturing industry, and the prices and consumption of its products.

2. Holding these opinions, the Commissioner of Agriculture believed it was his duty to adopt some plan to obtain each month, during the months from May to October, inclusive, general information of the amount and condition of our leading agricultural products. He was aware of the difficulties that surrounded an attempt of this kind. The department had no means, except in a copy of its annual report, these monthly reports, and seeds to pay for answers to interrogatories necessary to procure information. It had but one reliance—the

voluntary aid of intelligent farmers—a class to whom the government, in its utmost need, ever appealed to, and not in vain, for aid and protection.

The plan that has been adopted is to issue a circular for each month, commencing with May, to end with October, and in it to make inquiries relative to those crops the condition of which is of most importance to be known. It was desirable to avoid perplexing interrogatories, and to select those only which could be answered briefly and definitely. In the subjoined tables it will be seen that the questions relate to but two matters, the amount sown in 1863 compared with that in 1862, and the appearance of the crop in May and June. The answers are given in figures, by adopting 10 as the representative of an average of the *amount* of acres sown; making each number below or above it represent *one-tenth* of a decrease or increase. So 10 represents also an average *appearance*. The figure 9 would be one-tenth below the average appearance, and 11 would be one-tenth above it. These answers are simple, not likely to be misunderstood, and enable the department to make, readily, averages of a county, and from these of a State, and from all the States a general average. With this explanation every person will easily understand the tables.

The difficulties of collecting these statistics were several. The correspondents were unknown; who were reliable, from the interest they would take in the proposed plan, could be ascertained by trial only; who would procure the information, necessary to approximate to correctness, was uncertain. As farmers communicate to each other, and to persons in towns, especially to dealers in produce, the state and amount of their crops, there soon obtains in every county a knowledge of their condition, whether more or less than an average has been planted, whether injured, and by what cause, and to what extent. With no great deal of trouble, this information can be collected and transmitted through the plan adopted. *From no other source can the condition of growing crops be ascertained.* It is obvious that as our correspondents better understand the general character of the information this department needs, their inquiries will be seasonably made, so that their replies can be given clearly, and at the desired time.

It is designed to issue the circulars about the tenth day of each month, and have them mailed for their return on the first day of the ensuing month. This will give time to take averages of the answers, to prepare the meteorological tables, and to make such statements in the report as may be desired, and have it printed and distributed to correspondents, with the next circular, by the tenth.

Unseen difficulties, inseparable from every undertaking where experience has not yet fixed the routine necessary to be pursued, has delayed this first report. The irregularities of the mails, delay in the printing of the circulars, time required by correspondents to make arrangements to procure the desired information—these were some of them. The number and character of the answers received, especially under these disadvantages, give ample assurance that the plan adopted will be successful, and that this department will soon be in regular

correspondence with many of the most intelligent farmers of the several States.

The replies from which the following tables were made are not as numerous in some of the States as was desirable. But the answers from the great grain producing States of Ohio, Indiana, Illinois, Michigan, Wisconsin, and Iowa, were full and satisfactory. It is due, too, that the promptness of the new and distant States of Minnesota and Kansas should be kindly acknowledged, and their example commended to States much nearer to the capital.

Our correspondents will notice that the envelopes accompanying the circulars for July are prepaid. This course was rendered necessary by the construction given by the Postmaster General to the law of last session of Congress, regulating the franking privilege. That law declares that "all official communications addressed to the several executive departments by an officer responsible to that department, who shall mark it 'official,' with his signature thereto, shall be free of charge, but all others must be prepaid."

The act of May, 1862, creating the Department of Agriculture, enjoins on the Commissioner the duty "to acquire and preserve in his department all useful information concerning agriculture, which he can obtain by means of books and *correspondence*, by the *collection* of statistics, and valuable seeds and plants." And to enable him to discharge these duties, it declares that "said Commissioner may send and *receive* through the mail, *free of charge*, all communications, and other matter pertaining to the business of his department.

The other departments of government, where duties are enjoined upon them requiring action or information outside of Washington, have their officers, by whom and through whom these duties may be discharged, or this information be communicated. The Post Office Department has its deputies and mail agents. The Department of the Interior has its land offices, its Indian agents, etc. The Navy and War Departments have their officers, when sailors and soldiers are to be recruited, or drafted, or clothed, or fed, or marched, or paid. The State Department has its consuls and ministers, and other representatives, in every civilized nation. The Treasury Department has its custom-house officers wherever a duty is to be collected, and its assessors and collectors wherever an internal tax is to be levied and collected. Whatever information is needed by them these officers can give, and may frank their answers. But the Department of Agriculture has no such officers. All it has are in the rooms of the department. Yet to discharge its duties under the acts of May, 1862, and of February, 1843, it must have a correspondence from ocean to ocean, and from Maine to Texas.

A just construction of the act of Congress of last session would seem to have limited its restrictions to the departments having recognized officers through whom they may receive communications. To apply them to the Department of Agriculture, which has none, is imputing to Congress the folly of enjoining duties on this department, which demands a most extensive correspondence, when it has no recognized officers, but voluntary correspondents only, giving to it the proper mail facilities; and then, retaining the duties, but withhold-

ing the necessary mail necessities. Congress may accidentally pass two acts having an apparent conflict, but the rule of construction in such cases is well known; and that is, so to construe the acts as not to conflict with each other.

Rather than be unfaithful to the duties demanded of him by the act of Congress, and by the interests of agriculture, the Commissioner has determined to prepay all postage of his regular correspondents; for to ask of them unpaid information, and to pay their own postage, too, would be an act derogatory to the dignity of this department and to the courtesy which was due to them in their efforts to advance the interests of agriculture.

### Iowa State Fair.

This Fair is to be held this year at Dubuque, September 15, 16, 17 and 18.

That our Iowa friends will have a good show there can be no doubt, as the institution is in energetic hands.

Farmers in the northeast part of our State will doubtless give it their attention as well as exhibitors from all parts of the State. Iowa is a good customer to us, and besides she must pay tribute to our railroads and warehouses to send her produce to market.

Mississippi at several points will bind our sister State all the more closely to us, and give us a deeper interest in all her doings.

We should be pleased to accept Secretary Shaffer's kind invitation to be present, but neither our health or time will admit of it. We can therefore only wish them a large attendance and delightful weather.

**PRESERVING FRUIT IN COLD AIR.**—A late number of the *Gardener's Monthly* contains a report of the experiments of Fletcher, Williams, and Van Camp, of Indianapolis, with Nice's patented method of preserving fruit in air kept by ice within a few degrees of freezing, and rendered dry by chlorid of calcium. About a thousand bushels of apples were experimented upon the first winter. They kept till the following June in perfect condition. The following summer small fruits were tried. Raspberries and blackberries kept eight weeks, and then lost their flavor without decaying. Peaches, after ten weeks, showed evidences of decay; Gooseberries, currants and cherries kept much longer. Of pears, two hundred and fifty bushels were tried, of such sorts as Bartlett, Seckel and Flemish Beauty, which, it is thought, may keep the winter through. Grapes, as might be expected kept a year, but they should, of course, be well grown and thoroughly ripened

## Horticulture.

### ✦ Crops, Fruit and Birds at Dixon.

DIXON, LEE CO., ILL., July 29, 1863.

To the Editor of the *Illinois Farmer* :

M. L. DUNLAP, DEAR SIR:—The crops hereabouts are good; wheat all cut and most of it stacked. Early planted potatoes suffered some from drouth, but the late planted are fine.

There will be a fine crop of apples: small fruits almost a total failure, though the New Rochelle blackberry is doing nobly, (I like to have written it Lawton); but the birds! the birds! what shall be done with the birds? They took all my Early Richmond cherries, except enough for one pudding, and all my raspberries and gooseberries, with a large share of currants, and are now taking my apples—robins, thrushes, cat birds, blue jays, cider birds, orioles and almost every thing that can fly—rather expensive friends.

Yours truly,

J. T. LITTLE.

—While friend Little, is thus afflicted by the birds, we have to thank them for taking care of the insects in our grounds. It is true that the robins took a small toll out of our cherries and raspberries, but as this crop was good and not in the least disturbed by insects, we made no complaint. We only fed those which properly belonged to our grounds, as we are located over four miles from the grove, while our friend being in the edge of the woodland had more than his share of feeders, and thus has very good reason to complain. Many of these came in merely as robbers, without returning any consideration for their stealing. It appears to us that the cedar bird returns very little at any time, but the others do so, if perhaps, we except the blue jay.

There must be some special reason why the birds are so very voracious at that point; worms and beetles must be scarce or they would be less destructive on fruits, especially apples. We often hear complaints of the woodpeckers among the early apples, but this wholesale taking to the orchard is rather new to us. We think with the late abundant rain, in that location, the birds will be better fed on worms and other insects and leave the orchard. The blackberries of the woodland will call off the robbers to the shade and protection of the timber. Instances of the kind mentioned by friend Little, will occur, but even then it would not be a safe rule to kill off the marauding birds, for at other times they may do much good, though it is certainly provoking. We have observed the formation of colonies of worms in our trees and have left them for some days to see if the



birds would not find them out, and in all cases it has been done and the worms disappeared.

That the prairies, distant from the timber, will prove the most valuable for the cherry and the small fruits we are well assured, from the fact that in the breeding season they will flock in from the woodland and thus take more than their share of our fruits.

We are careful to protect the flocks of quails, as they are sure to pick up beetles that would do us serious damage. We have shook down whole colonies of span worms, to see them gather them up. The robin is a great eater and where insects are not abundant will take to fruit at a sad rate. It would be well to examine into the account current with the cedar bird, and if he don't pay his way set the boys after him.

### Black Caps and Purple Cam Raspberries.

Another season's experience, with these berries, in which we have marketed a small quantity of both, sufficient to give us an idea of their respective value. We can but repeat what we have often said in regard to them. First we will speak of the

#### PURPLE CAM.

This fruit is larger than the black caps, of a deep purple and of the same form and habits, both in cam and fruit. It is a more vigorous grower and less effected by drouth. Ripens this year from 28th June, and we have them at this writing, July 22d, and will bear for a week at least. It is more productive than the black cap, producing a fourth to a third more to the acre, and can be picked much faster than the other on account of size. The flavor is delicious, most people preferring it to the black cap. For jelly and wine it is superior. If the weather is warm it must be used within twenty-four hours after picking, consequently they cannot be sent any long distance to market. The canes are hardy and need no winter protection.

#### THE BLACK CAP.

Is fast becoming one of the most important of the small fruits, not even second to the strawberry which it follows in its season. Hundreds of acres of these canes are now in bearing, and other hundreds will be set out the coming spring. So rapidly has the demand for this berry grown up, that it has been sold in our market when brought from a distance at twenty cents a quart, and nothing like a supply could be had. We recollect a few years ago, when children brought in a few quarts from the groves, that it was dull of sale at six cents a quart; now the demand is almost unlimited, and hundreds of bushels could be sold at ten or twelve

cents a quart. Our small crop was sold at home for the latter price, and no small part of it to farmers.

#### PLANTING AND CULTURE.

The plants are to be set late in spring, in well-prepared soil, in rows six feet apart and four feet in the rows, and are to be kept clean with double shovel plow and horse. In March or April the canes are cut back, leaving the two strongest two to two and a half feet high, and the weaker ones, one to two feet, so as to give the stool a rounded appearance; clear the spaces of the clippings and keep thoroughly cultivated; no staking is needed. After the crop is taken off the old canes are cut out or left to die out, which they will do, and which we are inclined to think just as well, when they can be broken off and thrown out at the time of pruning.

A word of caution in regard to the true purple cam, as the tree peddlers will have something they will sell for it. We know of several who have purchased the spurious already. One of our acquaintances, was somewhat irate when we told him he had not the genuine, and to make it quite plain to him sent him a dozen plants. Since then his old plants have gone over the garden fence.

### Peaches and Plum Stocks.

Here comes Mr. Tree Peddler, with his glass jars filled with Brobdignag peaches, great, coarse, preserving sorts, but as unfit to eat as a raw quince.

*T. P.*—Good morning, Sir—see you have fine ground and orchards; can you grow peaches?

*Ed.*—Yes, Sir; have had good crops the past three years, and trees well loaded now. We have listened too much to the tale that peaches are not a certain crop here, and that the south part of the State will glut the market, both of which we now think to be grave errors, and intend to plant more largely.

*T. P.*—But what of the borer. I find that in this part of the State the trees are all dying with the fruit on, having been girdled by the borer. No use in trying to grow peaches in the old way, it can't be done; and how you manage to get good crops I cannot see. Your trees must be short lived any way.

*Ed.*—Yes, Sir, the peach is a short lived tree, but as it is easily grown, they can readily be replaced; and we thus keep up a supply. We plant our potatoes annually, and do not complain, then why of a peach because it will not live a thousand years?

*T. P.*—Well, friend, I do not wish to interrupt you while writing your letter, but I called to see you on a little business.



*Ed.*—Never mind the writing, I can write while you are talking, and keep the thread of your discourse, even better while writing, it is a habit that I have; I write and do business at the same time.

*T. P.*—Well, that is strange; you must be a lawyer, to write so fast—well, if it don't disturb you I will proceed to show you these samples of peaches. You will see they are very large, but they are only common grafted peaches. The secret is that they were grown on trees budded on the plum. It has lately been discovered that the peach grown on the plum stock, is more than double the size than on its own stock, as you can see by these specimens; and there are several other great advantages, one is that the tree starts late in the spring, and escapes the frost, thus insuring an annual crop; the borer cannot attack it, and the tree is sure to live the natural life of the plum, which is three times that of the peach. The fruit is of immense size and surpassing flavor, making them doubly valuable in market. About Toledo no man thinks of planting any other kind now; why, Sir, you could not give 'em trees budded on peach stocks. I sell the trees at seventy-five cents each, which is very cheap, considering their great value—if you want a hundred I will put 'em to you at sixty dollars; you will find it the greatest thing that you have seen; everybody buys 'em; here is a list of your neighbors who have given me their orders; you had best take a hundred; you can put 'em about in your orchard.

*Ed.*—What about the curculio?

*T. P.*—Never hearn on't.

*Ed.*—Well, Sir, the curculio is an insect that lays its eggs in the young plum, hereabouts, and in the peaches at the South, and is a great sinner. I did not know but he would destroy the fruit of the peach on your plum stock, mistaking it for the plum, at least he would suppose he was climbing a plum tree, and when once up in the tree would lay his eggs in the young fruit as it does in Egypt, and thus destroy the crop. I will show you drawings, and read you descriptions of this insect, so that hereafter you will be better acquainted with him. [Takes down a couple of dozen horticultural works from the shelves and interests the peddler for two hours.] Now, Sir, you see you will have to meet this little *Turk*, and unless you can warrant your plum stocks against his ravages, I cannot trade with you. There is another thing, which you may learn, and that is that the peach is short lived on the plum, as I have verified during past sixteen years. Large numbers of the peach and apricot were budded and sent out from New York nurseries, not one of which is now living to tell the tale. A few of them gave one crop of

fruit, in some cases a bountiful one, but the next year the trees gave up the ghost. We have heard nothing from this of late, it having been consigned, as supposed to the tomb that covers so many of our failures; but here you have it fresh with all its faults, again ready to dupe the ignorant and unsuspecting.

The plum is an early bloomer, and nothing is gained on that point, and as to the borer that can be kept out with a little labor. We can see no gain by the use of the plum stock, even if it would prove healthy, but this is not the case, the peach soon overgrows the stock and the junction becomes diseased and the trees die. The attempt to impose it upon the public, is of the class of humbugs to which your men are sadly addicted.

Every intelligent fruit grower knows it is a failure. And as to your Brobdignag peaches which you pretend are so much larger than usual, by reason of the plum stock, it is all bosh: Evan's Seedling, Heath Cling, and several others are as large, but of no great value aside from preserving. Your story about peaches dying with the fruit on from the effects of the borer is rather highly colored, but as the fools are not all dead, you will be able to find customers. People will gap with open mouthed wonder at your samples and swallow your story as readily as though you told the truth, but you will find one class that will be poor customers, those that take and read agricultural journals, and have access to works on pomology. I would recommend you to inquire if the farmer you call on takes an agricultural paper, before you offer him your wares, as it will save you much time. I can give you a list of people in this town, who take no such paper, and who will purchase your trees; they always buy the best thing out. Some of them have orchards ten years old that will have fruit on some day, in all probability. Seek out such men and you will succeed. Good morning, Sir.

The peddler in going out meets one of the neighbors at the gate, and inquires "who that old feller is, writing in that room yonder." He is told that it is———. "Well now did I ever, didn't know that agricultural editors ever lived in the country. Well, well, I'll steer clear of them hereafter."

### Wakeman's Orchard.

By invitation of our friend Wakeman, we dropped in to see his cherry crop, and for the first time took a bird's eye view of the result of years of patient, intelligent, scientific labor. The whole question as to whether fruit will grow in Illinois, is answered at a glance. You may see with a few minutes' walk the trees that have borne one thousand bushels of cherries the present season, and indeed for many seasons, and the trees whereon

are more than a thousand bushels of apples, and pears in abundance, peaches by the load, with the smaller fruits in plentiful supply. We deny that Mr. Wakeman possesses superior natural advantages; indeed we think his soil for the production of fruit is inferior to many locations in the State. Such thrifty trees, and such success with everything he touches in the varied varieties of fruit, what does it argue but that modicum of *common sense* which has developed the most gratifying and praiseworthy results which may be truly classed with scientific attainments. Mr. Wakeman has a reason for everything he does, and when you learn that reason, are at once impressed that you have become possessed of a fact. We are resolved to make him unlock his storehouse of knowledge in the culture of fruits, for the benefit of the many beginners on our prairies, and also for those who have failed so often as about to despair of producing the most necessary requirement for health and attractive homes in our otherwise celebrated, fertile, fair State. Now, friend Wakeman, prepare to open your bundle of knowledge, and give the readers of the *Illinoian* a few useful facts.—*North-ern Illinoian*.

—The cherry above alluded to, is the Early Richmond of Downing, and known also as the May Cherry, or Virginia May. In the south half of our State it is ripe in May; with us it ripens June 10th, and continues two or three weeks. It is an immense bearer and should be in every garden in the State. Some of the Eastern nurseries have sent out the Early May of Downing, for this May Cherry which is a very inferior fruit, while others have sent out the Montmorency, under the name of Early Richmond. We have fruited this cherry for a dozen years, and have sent out thousands of trees from our nursery.

Mr. W.'s orchard is one of the best in the State. The trees all have low heads; the soil has been plowed against them at least a foot deep, giving ample surface draining, and is kept well cultivated. We have on several occasions called the attention of our readers to this orchard, as well as to the history of the May Cherry.

We have a cherry orchard of six hundred trees, about the number in the orchard of Mr. W.; they are grafted about two feet high on the Morello stock, and will come into bearing next season for the first. When grafted on the Mozzard stock they are apt to die out after three or four years; we have seen several dead ones this season. Ed.

### Renewing Strawberries.

It is sometimes made an objection to certain kinds of strawberries, that after producing a few crops they die out, and leave the cultivator without a crop for the ensuing year.

It is worth remembering, however, that all strawberries bear better, and produce fruit of better quality the second year of planting out than at any other period of their lives, and it is probably

on the whole better to base one's calculations on renewing beds every second year.

This is more particularly desirable where strawberries are grown in hills—a plan which is now followed by most who seek the best results, and which plan is very liable to be attended by the well known enervating effects of overbearing.

Many market growers of the strawberry, whose pecuniary interests generally lead them to the most profitable way of raising fruit, renew their beds every third year. They make a plantation every season, which, after bearing two crops, is destroyed. A new one planted and an old one abandoned, thus keeps up the annual succession. These are not planted exact in hills, but in plow rows—the plants, perhaps, twelve inches apart, and the rows two or two and a half feet. These rows are usually hoe-harrowed continuously through the early part of the season, till the fruit is ripening, when the whole bed is left to the undisturbed possession of the runners and the fruit. In September, after the new ground has been thoroughly prepared, the runners are taken off and set in pans of water, from which they are transferred to their assigned positions in the new rows. All the runners not wanted are then cut off with a hoe or harrow, the plants left to bear one more good crop next season, which is usually the best, after which they are destroyed, and the ground planted again with young plants, or left for the purpose of using for some other crop, accordingly as it may suit the views or convenience of the planter in regard to rotative cropping.

This is a general outline of the practice of some of the best growers we know. They each vary in some particular, but the main point is in the early renewal of the plant, as we have stated.

The questionable point would be this: Granting that a third year's crop from the same plants would not be as good as the second year's had been, would the difference be so great as to warrant the increased labor of making new beds? We believe it would. Moreover, the labor is very likely to be overrated; for it costs but little more to make a new plantation than it does to clean out and fix up an old one.

There are some instances, no doubt, where it can be proved best to let a bed remain more than two fruiting seasons, and as long as it will bear well. In the ever varying circumstances under which horticultural rules are to be practiced, these anomalies are continually occurring, but we have no doubt, as a general thing, it will be found most profitable and satisfactory to make a new plantation every second or third year.

[*Gardener's Monthly*.]

### Japanese Horticulture.

The following passage occurred in a series of lively letters written by an American traveler in Japan:

From Mengoori we rode on into the country through delightful rural roads, which recalled to memory the environs of Boston. We passed on the road, in succession, tea-houses, pleasure gardens, and cultivated fields. A nursery, too, which had a living gateway—a gateway with posts, roof and two folding half-open doors, all the product of the skillful training of two pines, whose trunks

formed the posts, whose united branches were outspread into a roof; and then a lateral branch from each trunk was spread and trained to make the leaves of the half open doors. We came to a way-side tea-house, famous for a notable Wistaria (*Glycine Chinensis*.) And this Wistaria deserves fame, for it is seven feet in circumference, and its thrifty branches, supported on a trellis, covered an area of 50 feet by 100! It was such a roof of green as one may not see twice in a lifetime. This tree, for it seems a misnomer to call it a vine, was said to be 600 years old.

### The Early Richmond Cherry.

The Rural reader will remember the article on the question of the nomenclature of this cherry, which appeared in the Rural of November 23, wherein the writer insisted that the Early Richmond is *not* the Early May cherry; and that the hardy, productive and early bearing cherry, cultivated by James Wakeman and others, is the Early Richmond, and not in anywise related to the Early May.

It will also be remembered that we were controverting the position of the Hon. M. L. Dunlap, who has for years insisted upon calling it the May Cherry or Early May.

This whole question was brought before the Illinois State Horticultural Society at its recent meeting, by Mr Dunlap, for adjustment. The article in the Rural of November 23d, was read, and Mr. D.'s appended reply (prepared for the press) in an elaborate paper, was also read.

Mr. D., in this paper, insisted that this cherry was, early in the history in this State, known as the May cherry; that it had been sent here from Cincinnati as the Early May; that it is distinct and entirely unlike the Early Richmond of the East, as sent hither by some Eastern nurseryman; but he concedes that it is *not* the Early May of Downing, Elliott, etc. The writer asked "Whose Early May is it, then?" A voice—"Dunlap's Early May." Dunlap—"The Early May of the West." Mr. Overman had long known it as Early May. It was so known in Indiana and Ohio, and so introduced here from those States. Mr. Edwards had known it in Cincinnati. It was there called the Early Richmond, or Early May. The two cherries were regarded identical then; or at least the names, as used, were synonymous. But the cherry, as he has it and knows it, answers the description given of the Early Richmond by Elliott and Downing, and it has none of the characteristics of the Early May as described by these authors. Mr. Ellsworth had received this cherry as the Early Richmond from some of the Eastern nurseries—identical with the Early Richmond of Wakeman. Other gentlemen gave similar testimony, all agreeing that the cherry is *not* the Early May of the books, and that it is important the question be settled. Accordingly, a committee was appointed to investigate and report upon the matter. F. K. Phoenix, C. R. Overman, M. L. Dunlap, Samuel Edwards, (Chairman,) and James Wakeman composed the committee. Said committee, the next day, reported in substance, that the cherry in question is not the Early May of the books; and that it is, and should be, hereafter called in the reports of the Society the Early Richmodd.

It is but just to say that Mr. Dunlap protested

against being placed on and did not act with the committee. But I do not think he will dissent from its action.—*Rural New Yorker*.

Truth, it is said, will prevail at last, but it has been a long time in sifting the error in regard to the nomenclature of this fruit. There has been some very selfish or some very stupid nonsense in regard to it, but none so blind as those who will not see, is the old adage. At last we have the announcement for which we have contended, that the May or Early May of New York and the Early Richmond of some of the new York nurseries, are not the Early Richmond or May Cherry of the West—that is the point.

We have shown how this Cherry came West by the Way of Virginia and Kentucky, where it is so popular, tracing it through Indiana to Lockport, in our State, wherever it was obtained by Mr. Wakeman.

That spurious Early Richmond or May Cherry, (Kentish of *Downing*) will continue to be disseminated we are quite sure, for two reasons. 1. That some nurseries contain the spurious, and people will purchase them without knowing the difference. 2. The supply is not equal to the demand, and tree peddlers will sell some other Cherry for it. Within the past two years we know of hundreds of spurious trees to have been sold for this variety, and many of them within six or seven miles of us. The May Cherry is rather drooping in its habit, and hence when a straight, upright, free growing tree is offered you may be sure that it is not true, for the true kind is never an upright grower.

The name by which this Cherry shall be known is not as yet settled, but is in the hands of a Committee to report, of which Dr. Warder is Chairman. The name Kentish, by which Downing calls it, is rather a sole family of the Cherry rather than the name of an individual, and it will be proposed to call it Early Richmond or some other well known name.

Ed.

### Mustard.

The Sacramento (Cal.) *Bee* says:—"There were shipped from San Francisco, last week, 234 bags of mustard for New York. It is known that the wild mustard, or the mustard that grows wild on hundreds of thousands of acres in Southern California, counting from Santa Clara down, is superior to the English imported mustard. This home mustard is in general use in this State, and for many years it has been gathered by parties and shipped abroad. The supply is almost endless, and the business of gathering it ought to be, and will yet be, when labor becomes cheaper, a leading one in the commercial interests of the State.

## The Dairy.

From the Genesee Farmer.

### How to Milk the Cows.

Mr. Dadd, the well known veterinary surgeon, writes as follows on this subject :

The first process in the operation of milking, is to make the cow's acquaintance, and gives her to understand that the milker approaches her with none other than friendly intentions; for if he swears, scolds or kicks her, she is likely to prove refractory, and may, possibly, give the uncouth and unfeeling milker the benefit of her heels which, in my opinion he is justly entitled to.

Before commencing to milk the animal, she should be fed, or have some kind of fodder; in the enjoyment of the mastication of the same, her attention is withdrawn from the milker's operations, and the milk is not "held up," as the saying is, but is yielded freely.

[This is true, so far as it goes, but we doubt the general policy of feeding cows while milking. If they are accustomed to it for a short time, and it should afterwards be desirable, as it frequently will be, to forego the practice, the cow will not give down her milk freely. We know a case in point: A farmer had been in the habit of giving his cows a bran-mash at the time of milking. After a time, when the cows had plenty of grass, he withheld the mash—and the cows withheld the milk! He found it so difficult to milk them, that he had to continue feeding them during the process.]

The milker should not sit off at a distance, like a coward, but his left arm should come in contact with the leg of the cow, so that she can not kick. If she makes the attempt when the milker is in close proximity with the cow's body, the former merely gets a kick instead of a blow.

[Good advice—sit close to the cow, and do not push your head into her flank. Sit up straight on the stool, and hold the pail up from the ground between your knees.]

Before commencing to milk, the teats are to be washed with cold water, in warm weather, and warm water in winter. The object is to remove accumulated dirt, which otherwise would fall into the milk pail, to the disgust of persons who love pure milk, and hate uncleanness. Here is a chance for improvement.

The best milker is a merciful man. The udder and teats are highly organized and very sensitive; and these facts should be taken into consideration especially when milking a young animal, for the teats are sometimes excessively tender, and the hard tugging and squeezing which many poor sensitive creatures have to endure, at the hands of some thoughtless, hard-fisted man, are really distressing to witness.

A better milker than even a merciful man, is a woman. The principle part of the milking, in private establishments in foreign countries, is done by

women; and in these United States there are thousands of capable women out of employment who might be advantageously employed, in private and dairy establishments, as milkmaids. Therefore, in view of improvement in the art of milking, I advise farmers to learn their wives, daughters and female domestics how to strip the cows.

[We second this recommendation. Farmers should teach (not learn) their daughters and female domestics not only to "strip," but to milk the cows. A cow likes to be milked by a soft-handed, and kind hearted woman much better than by a rough cross grained, hard fisted Lord of Creation, and will give more milk.]

An indolent person—slow coach—should never be suffered to touch a cow's teat; the process, to say the least of it, is painful; therefore, the best milker, is the one who can abstract the milk in the quickest time.

Finally, milk the cow dry. The last of the milk is the most valuable, yet Mr. Hurry-up can not spare time to attend to this matter, consequently he loses the best of the strippings, and actually ruins the cow as a milker.

[The other recommendations are good. Milk rapidly and thoroughly, and do not speak a word. If you must exercise your vocal powers hum a soothing tune, keeping time to the music of the flowing milk.]

### The Cow-Milking Machine.

This American invention, after having been for sometime before the public in this country, was shown at the International Exhibition at London last summer, where it attracted much attention. Although frequent notices of the machine have appeared in the English papers we have seen nothing definite in regard to actual trials with it in Britain till we met with the following article in the last number of the Scottish Quarterly Journal of Agriculture, in which the editor gives an account of some experiments; made, apparently, with care and precision. He says:

We have lately had an opportunity of working this novel invention, which has been prominently brought before the public. Everybody who has read a description of it is aware that the machine consists of a tin can, on the top of which is placed the milking apparatus. This apparatus again consists of four finger-pieces made of indiarubber and having wire-coil for increased strength and stability. The teats of the cow being fitted to these finger-pieces, the operator works a two-handled air-pump, which sucks the air from inside the body of the machine, which is in direct communication with the finger-pieces; and by the external pressure of the air on the finger-pieces, the milk is forced out of the teats.

We have made four separate trials with the machine, and here note the result for the information of those who may feel interested in the subject. We may remark that we worked it with our own hands on each occasion.

At first we experienced some difficulty in using it. It is not as easy as might be supposed to fit the finger-pieces on the teats air-tight; and when



they are so fitted on, a restive animal is liable to throw the whole out of gear.

We attempted the milking of three cows on the first trial. From one which was milking from 5 to 5½ quarts at a meal, we obtained 4½ quarts; another, which has very uneven teats, we could not milk at all, and from the third, which was only milking 2½ quarts at a meal, we were only able to obtain a little more than a quart. All our subsequent trials have been attended with similar results. The conclusions to which we have arrived in reference to this machine, are the following:

1. It will not extract all the milk from cows. If it should be found to answer in every other respect this is no fatal objection to its use, as the stippings could be milked by hand.

2. Cows that have good teats, well set in the udder, can be milked to within half a quart to a quart of their full milk.

3. Cows whose teats are uneven can with difficulty be milked.

4. We doubt very much if any amount of experience and perseverance will overcome the difficulty of milking kicking or restive cows.—*Boston Cultivator.*

**HOW TO MAKE CHAMPAGNE CIDER.**—In reply to an inquiry from a subscriber at Sonoma, California, we republish the following directions furnished to the *Co. GENT.*, some years ago, by Mr. JAS. LEVESQUE of the Island of Jersey;

After the apples are crushed, press out the juice put in a clean cask and leave out the bung. It will work without anything being put in; in four or five days, draw off, and put into another clean cask. Do this three or four times allowing as many days between each changing. It does not work well in cloudy weather and so must be left longer. If it does not fine well, it will not keep sweet. To assist the fining, dissolve 6 ounces of gelatine for each hogshead and mix; do this previous to the last change of cask.

The quality of cider depends on the sort of apples used. 10 parts sour apples and one part sweet will make good cider.

Now observe, let there be no time lost in the whole process, but allow sufficient time to do it well. It is the particles of pulp left in the cider that causes it to turn sour. To effect the proper clarifying and working, it will require four changes of cask, that is if you want first rate cider.

Do not put any water in any part of the process have all juice.

After the last change, the cider may remain in the cask, bunged up two or three months. You can then bottle off—lay the bottles down in a cold dark cellar—some will burst, but then you must put up with it. It will be fit to use during the summer, when all parts of the work have been well done. The bottled cider will be equal to champagne, and will keep sweet. Some put brandy, or other spirits in—it does not preserve it, but makes it intoxicating.

If you use pineapples very cheap, two or three in each hogshead of juice will be sufficient. If you keep the cider in casks, make them sound and air-tight, and wash out with cold water, then fumigate with rag of sulphur and then dip the rag in; a

piece about one foot square will be sufficient for a hogshead—light the rag and then put it in the hogshead—leave out the spile peg only. This will destroy all must or mildew, or any other bad taste in the cask.

Thousands of pipes are exported from this island annually.

## Miscellaneous.

### Censervatism among Mechanics.

Tradition is a good thing in its way, but mere blind reliance upon it sometimes leads men astray. The teachings of the past, applied to the arts, form what is termed experience, and by recalling to mind exigencies where extraordinary means have been employed to overcome difficulties, men perform duties with more ease and certainty than if they had not much memory at their service. The reader may ask, "suppose a man has not had extensive experience in some branches of his business, how shall he thus familiarize himself with them?" We answer, inform himself by taking advantage of every means within reach that lead to the desired end. Conversations with practical men; consultations with books or papers devoted to the specialty he wishes to become acquainted with; these have an important influence which cannot fail to be an advantage to the student.

The mechanical ideas of this age of the world lead men ever onward; that is to say, that every hour discloses some vital question on which the masses of mechanics are ignorant because they have never given attention to the subject; as, for instance, the most impenetrable armor; the most deadly gun, rifled or smooth bore; the best forms for the hulls of batteries and iron-clad ships; and countless other points which will suggest themselves to all. This is why we say the spirit of the age leads ever onward, and hence the necessity which exists for investigating the labors of those who have preceded us. Is it not palpable to every one that the individual who has a knowledge of three or four different processes of doing the same thing, is a far more valuable member of society than he who adheres obstinately to his old-time method in the firm conviction that it alone is worthy of attention? Most undoubtedly. Yet we go over workshops and see men at work with tools that the best authorities have discarded long ago as useless, and have superseded them by more efficient ones; we see lathes in use with narrow shears, small spindles, light screws; planers with chains instead of screws or racks, and pinions, chainfeed on the lathes aforesaid, and other exploded and thrown-aside devices that time has outstripped and supplanted by more efficient ones. These are the old-school men, and they would succeed much better in business, if they took advantage of the discoveries and theories reduced to practice by other men. Pull out the old-fashioned machines and replace them with others better capable of doing the work! They occupy room and waste time every day that ought to have been economized.—*Scientific American.*

—The above rule will hold good among farmers. The great mass of farmers are left in the back



ground and are left with the old tools in their hands. The old barshire plow has yet a place in the corn field among this class, for they neither read or listen to others. On the other hand there is a class ever running after new things, with them a thing must be new to have any virtue. The reading, thinking farmer uses the best whether new or old, and carefully examines the former before he decides on its value.

### The Plum-Gouger--A New Foe of the Plum.

*Eds. Prairie Farmer:*—I long ago noticed that besides the well known crescent shaped cuts made in plums by the notorious *Curculio* wherein to deposit its eggs, there existed in plums other circular holes which exuded gum like the crescent shaped ones. It is only to-day, however, that I have become aware that the round holes are made by an entirely different insect, which, although like the *Curculio*, it belongs to the great group of Beetles known as *Rhyncophoro* or *Snout-Beetles*, yet must be classed in a different genus of that group, and is a very differently colored and differently shaped animal. I find some of the Rock Island plum growers, who are grievously infested by this beast, mistake him for the true *Curculio*, and I have no doubt the same mistake has been made elsewhere in the Valley of the Mississippi; but in the eyes of an entomologist they are as different as a cow and a deer. What is remarkable, this insect is a new and undescribed species; and from the circumstances that my friend Dr. John L. LeConte, of Philadelphia, to whom I sent specimens in 1861, pronounced it to be "unknown to him," I have little doubt that like so many others of our noxious insects, it is peculiar to the Great West.

As I have found it for many years back, not only upon wild plums but on the crab, I suspect that it attacks apples as well as plums, as we know the notorious *Curculio* will sometimes do. Its natural history is doubtless the same as that of its relative, the little Turk, for on cutting into the plum underneath the round hole made by its beak, I have discovered the young larva in a vigorous state in the burrow connected with the hole. It seems to have one habit, however, that so far as I am aware has not been recorded of the little Turk: It bores into the plum not only to deposit its egg, but also for food, forming thereby round holes, open down to the very kernel, and varying in size from a pea to a radish seed. Chas. Buford, Esq., of Rock Island, informs me that he has found these insects sitting upon plums plugged in this manner, though he never saw them actually at work making the hole. I have myself seen many such holes, and have little doubt they are made by this insect. Hence I propose to call it the "Plum Gouger."

If this insect would be kind enough to confine itself to the above gouging process, our fruit-growers might forgive it; for such wounds soon heal over. But unfortunately the much smaller holes in which its eggs are deposited, cause the plum to wilt and drop eventually, just as plums stung by the *Curculio* do. The former is a mere superficial

flesh wound, and nature soon repairs the damage; the latter gives birth to a larva or maggot, which burrows into the very vitals of the plum, and the result is death.

After a careful examination of the plum trees of A. F. Swander, Esq., of Rock Island, who first called my attention to this insect as infesting the tame plum, I am satisfied that full as many of his plums are "stung" by the Plum Gouger as by the *Curculio*; and Chas. Buford, Esq., tells me that upon his trees he finds considerably more of the former insect than of the latter. Your readers will confer a favor upon the fruit growing community by informing them, through your columns, whether both insects are found in their own localities upon tame plum trees, and if so, in what proportion, so near as they can guess.

"But," some impatient bug-hater may perhaps exclaim, "what is the practical use of being able to distinguish these odious vermin? What can it practically matter which of two bugs, equally ugly and equally mischievous, are destroying my plums?" Stop a bit, my impatient friend. If you are going to sit with folded arms and quietly submit to all the damage done you by bugdom, it is, as you say of no earthly consequence to know anything about the different species of bugs. But if you are going to fight your insect foes, it is of the utmost practical importance that you should know which insects do the damage, so that you may not kill your friends, the cannibals instead of your foes, the plant-feeders. Again, it has quite recently been proposed to fight the *Curculio* by cutting out the egg with a pen knife, when, as is stated, the wound rapidly heals over, and the plum grows and ripens. Any one that undertakes this operation will understand at once the practical importance of knowing that he must cut out, not only the crescent-shaped slits, but also the round holes; for both, as I have shown, contain insects destructive to the plum either in the egg or in the larva state.

"A word to the wise is sufficient."

BENJ. D. WALSH.

Many of our plums have been stung by this insect, but we do not apprehend the injury from it as from the *Curculio*. Last year our plums were stung by it, but we did not observe a falling off of the fruit. The fruit is now three fourths of an inch long, and no signs of injury. We may be disappointed, but we have less fears of damage from this insect than our friend Walsh. We have got rid of the *Curculio* on our trees, which are loaded with fruit, but if this new comer attacks us in this underhand way, we shall be disposed to give up, as he comes into our yard when the *Curculio* does not show himself. We shall watch this new comer with unusual anxiety, and hope our readers will do the same.

### Essay on Forest Trees.

*To the Horticulturalists of Tazewell County:*

GENTLEMEN: The task you have imposed on me is a very agreeable one. The culture of trees is a delight to all well ordered minds. But it is not every one that loves the culture of forest trees.

Fruit trees bear their own reward with them, and annually tax themselves to remunerate us for our toil. Not so with our forest trees. They stand in symmetrical beauty, and challenge our admiration, either for their symmetry or their utility.

In most parts of our widely extended country, the cultivation of forest trees is never thought of. So far from it indeed, that the thoughtful minds have rather been devising ways to get rid of forests rather than rearing them. But in such a country as it is our good fortune to inhabit, the thinking men are asking for ways and means to grow trees with the greatest success, and in the shortest time. So great indeed, has been this feeling, that anything which promises a quick return, has been greedily seized by the multitude.

The black locust had its day, and the white willow has its day now. It seems to be almost a part of the human mind to be grasping after everything "far fetched and dear bought," certainly it is a part of the American mind. Our European neighbors play some pranks with us on this principle. They send us broken down dancers and opera players, singers with cracked voices, and men with cracked reputations, in the various professions, and we forsake our own lights and follow their jack o' lanterns. I will venture the opinion that even here, in this "Celestial City," were some European doctor to make his appearance, your old and well tried men would be abandoned for a season, while you would take a trot after the new M. D.

But what has this to do with the tree planting? I think I hear my friends say. Why, just what we are now doing. Chasing exotics, and neglecting our own indigenous trees. I would persuade you to plant those trees which will stand our climate, and defy the attacks of our numerous insect foes. I shall in this paper recommend but four or five varieties for extensive planting. And first of all in importance is our well tried friend, the black walnut, and next to him his german cousin, the butternut or white walnut.

Gather the nuts at maturity in October, plant with the same care you would corn, and cultivate the same and your forest will be limited only by your efforts. The insects that sometimes attack the leaves of the black walnut, do the tree no harm. It is proof against the attacks of insects. Stock won't bruise it, tramping does no harm. Nothing but the axe will kill it, and it is the mahogany of Illinois. The same may be said of the butternut, except that the timber is better for some purposes but not so good for others.

Take next the maples. The hard maple or "sugar tree." The soft maple or "silver maple," and the Ash-leaved maple, or "box elder." These trees, especially the two last, are easily removed from their native wilds, and made to grow in our cultivated fields. Or the seed may easily be gathered and the trees raised from the seed, and that without the least fear of failure. I may add, that all these maples are good sugar trees, rich in saccharine matter, and unequalled for the purpose of fuel. What apology have we then, for letting these naked fields stand shivering in our bleak winters, or burning under our verticle sun?

Does not wisdom cry aloud? She stands in every glen, on the hill tops, and beside every laughing rill, calling upon the people of Illinois to accept her bounties and enrich themselves.

I beg you my friends, in conclusion, not to think

I would discard the more costly and luxurious evergreens or giant oak. I speak of such as will certainly and speedily repay our toil and outlay.

GEO. W. MINIER.

The above we cut from the Tazewell Republican, being an address before the Tazewell County Aoeticultural Society.

Mr. M., is an enthusiast on the subject of native forest trees, and has done much to call the attention of our farmers to their value. We think him mistaken in leaf or soft maple a sugar making tree as neither of them are of any value for that purpose. The box elder may make sugar, but we would never plant it for that purpose.

The sugar maple is of little value for sugar when planted in the open field, but needs the deep forest to yield the sugar. A native maple forest cleared up so as to seed down with blue grass, we think would be ruined for sugar making. Aside from sugar making, the maples are valuable for shade trees, and should be more generally planted.

Our friend is after the white willow, and we think there will be some thousands of our farmers after it, to fill the faults in the hedges made by small cuttings.

ED.

### Effects of Mercury on Sheep.

Professor John Gamgee, in the *Edinburgh Veterinary Review*, draws attention to the mischief arising from the reckless use of mercurial ointment as a dressing for scabby sheep. Sheep, he says, and ruminants are more readily poisoned by mercury than any other domestic animal; and in some instances, mercury appears to be the cause of death directly, by its effects on the blood; in others it seems to kill by the varnish with which it covers the skin, which hinders the exhalations from that organ, and engorges the lungs; in others, again, it seems to produce an enfeebling of the digestive powers, so that a change to a better diet proves fatal. Severe salivation and loosening of the teeth are common occurrences.

### Eutton Sheep at the West.

The United States *Economist* says: "In Illinois and other parts of the West, where corn is raised in such quantities that it is at times used as fuel, the Leicester and Cotswold sheep would pay a large profit to the grower, if raised and fed for the mutton alone, leaving out of the account the value of the fleece. Corn is a most excellent food for fattening sheep, and there is no country on the earth that can compete with the West in its pro-

duction. By looking over the market reports of the three cities of Boston, Philadelphia and New York, it will be found that the average price of first-class mutton is higher at all times than the average price of first-class beef, but the largest profit in growing of sheep in our country is realized in the clip. In Canada, where the Leicester and Cotswold are the favorite breeds, the average weight of the fleece is full six pounds after being washed. It is estimated that in all sheep-growing countries that the increase of the flock will fully offset the cost of keeping, so that the clip is clear profit."

It advises the farmers of the West to import Leicester and Cotswold breeds from Canada as largely as possible.

Chemical Erasive Hard Soap.

4 lbs. grease, 2 lbs. rosin, 3 lbs. sal soda, 1 lb. caustic soda, 4 oz. borax, 1 lb. lime.

DIRECTIONS.

Mix grease, rosin, salsoda and borax, and melt in kettle; dissolve caustic soda and lime in 6 gallons of hot water: add this lye into kettle slowly, and boil three hours—the soap is made.—*Domestic Economy.*

—The above is being peddled about the country for a dollar a copy, and has been handed us by a lady friend. It must be valuable and truthful for it is from an old soap maker who is the seller, and who has spent the best part of his days in the saponary.

Of late however, it is not so valuable on account of the high price of rosin, and besides the use of silicate of soda has somewhat changed the programme, and the old soap maker will be compelled to get up a new dollar receipt.

Let us see how cheap this soap is:

4 lbs. grease, 8 cts.....	32
2 " rosin, 20 cts.....	40
3 " sal soda, 10 cts.....	30
1 " caustic soda. 25 cts.....	25
¼ " borax, and 1 lb. lime.....	10

Cost of 30 lbs. soap.....\$1.37

Or less than three cents a pound. This looks all well enough on paper, but the trouble is our lady friend has failed to get up the soap at all, but has a prospect of a saponaceous compound, of inferior value, by doubling the ingredients, which will bring the cost up to that of good soap by the box.

The morale of this is, not to purchase recipes of "old soap boilers," when good bar soap can be had at reasonable rates by the box, which is the only way in which the farmer should purchase his hard soap. Many of our lady friends are great on making cheap bar soap, and we suggest that they

will get more and better soap for their money to purchase by the box, to say nothing of the fret and furor over it.

If one has good hard wood ashes, soft soap can be easily and cheaply made, but when we come to hard soap we prefer to give the "old soap boiler" a chance to work in the factory, and take our soap by the box.

From the Cincinnati Commercial.

The Frost in Indiana.

The frost last week appears to have done a vast deal of mischief. We hear that the corn, far advanced as it is, has been ruined in many places, and damaged in all, between this city and the Upper Wabash. In Hendricks county we hear of one field of seventy acres, in which the stalks were four to six feet high, which was actually frozen to death, not a hill a green or healthy blade. This, though probably, a worse case than the average, indicates a severity which, at the mildest, cannot have failed to cut down the crops in all the affected region seriously. Potatoes, especially sweet potatoes and melons, are badly and widely injured, and the co-operation of the drouth, which has pervaded in the central portion of the State for nearly a month now, will undoubtedly leave us but a trifling yield of either. We have seen no estimate as yet of the amount of frozen territory or the injury inflicted.

—The frost of July 14th did considerable damage in many places; corn in this county in the low grounds is damaged.

About thirty years since a severe frost visited this portion of the part of the State in June, killing nearly all the leaves in the forest, and on the 4th of June three or four years since the whole country was white with frost, doing an immense amount of damage, in all low situations. Ed.

How to Select Flour.

1. Look at the color, if it is white, with a slightly yellowish, or straw colored tint, buy it. If it is very white, with a bluish cast, or with white specks in it, refuse it.
2. Examine its adhesiveness; wet and knead a little of it between your fingers; if it works soft and stick, it is poor.
3. Throw a little lump of dry flour against a dry, smooth, perpendicular surface; if it falls like powder, it is bad.
4. Squeeze some of the flour in your hand; if it retains the shape given by the pressure, that, too, is a good sign. Flour that will stand all these tests, it is safe to buy. These modes are given by old flour dealers, and they pertain to a matter that concerns every body, namely the staff of life.

The Indiana State Fair for 1863, will be held on the old fair grounds, in Indianapolis, commencing September 28th, and continuing to October 3d. The premium list is liberal, amounting to \$8,000. ur State fair comes off at the same time.

## Machinery and Hand Labor.

Not such a great while ago our thread was spun between the thumb and the finger, and all our cloth woven in the clumsiest of hand-loom. Now, by means of a spinning jenny and weaving machinery, one person will make as much as two hundred yards of cloth in a day. Before the invention of the cotton gin, one person would not prepare one pound of cotton so easily as he can now prepare one hundred pounds. Our grandmothers could barely knit one pair of socks in a day—now, by means of a machine, one little girl can turn out a hundred dollars' worth of knitted materials in a day. A few years ago we were told that it took seventeen men to make a complete pin; now the machine is fed with the raw material, which is not touched again until rolled up in papers of pins. In Providence, R. I., there is to-day a machine that takes a strip of metal from a coil, and makes two hundred and thirty inches of pin chain out of it in a day. The metals are no longer worked by hand—a slow, wearing process; they are shaved, sawed, bored and hammered, with the greatest ease and accuracy, as much as if they were of the softest pine.

An instrument has been contrived and perfected of exceedingly delicate powers, which measures the operation of the mind itself—tells the exact time it takes for a sensation from the finger to reach the brain—two-tenths of a second! Go into a certain Indian rubber store in New York, and you will find a hundred different articles made of that one staple—only a few years ago good for nothing only to rub out marks, and furnish active-jawed young persons something to chew. As wood gives out, coal pits are found everywhere. We begin to fear for lights with which to illuminate our homes, and make all things cheerful; when lo! oil is distilled from coal, and we even have streams of it spouting out of the ground for us to fill our lamps with! Coal tar, once regarded as useless, is now manufactured into many different merchantable articles, some of them of great value.—*Scientific Amer.*

## The Crops for May and June.

We have the report of Commissioner Newton for the above months, from which we copy below the result. This is the first report of the kind, and will be found full of interest. Circulars are again out for the crop prospect July. Ed.

### THE TABLES OF CROPS FOR MAY AND JUNE.

**Winter wheat.**—The appearance of this crop in June varied in different localities. In Nebraska Territory it was destroyed by the winter, and in New Hampshire from the same cause. But the general appearance is but one-tenth below an average. In the great wheat producing States of Illinois, Indiana, Iowa, Maryland, Michigan, New York, Pennsylvania, and Wisconsin, the average is still better, being but a half-tenth below it. Ohio is the only large wheat-producing State that falls below the general average, being two-tenths below. The injuries from Hessian fly, rust, freezing out, and all other casualties are so small as to amount to but one and one-third tenth. Against this we have in the table for May a tenth more

land sowed than in 1862, which was the largest crop ever grown in this country.

**Spring wheat.**—This presents a better general average, being but three-fourths of a tenth below the average of a good crop, and having sustained but one-tenth injury from all causes.

**Barley.**—This crop is excellent, being one-tenth more than an average in the amount sown, and but a half-tenth below it in appearance.

**Corn.**—This, our national crop, is reported as generally small in size on account of the drought of the latter part of May and the first half June, in some States, and nearly the whole of it in others. The entire injury it sustained from worms, drought, and all other causes, is but one and a half tenth, and its appearance is but one-tenth below the standard of a good crop. This crop is tried hardest in the usual July drought, but every appearance of the weather, which is now generally favorable from the fall of warm and abundant rains, gives assurance that there will be no July drought.

**Oats.**—This crop has undoubtedly suffered much from drought. If it escapes the rust it may still be better than the crop of last year. New York and Pennsylvania are the great oat-producing States, and in the first of these this crop has not suffered much.

**Tobacco.**—On account of the war this has increased rapidly in the loyal States. The amount planted this year, as shown by the table for June, is seventy-five per cent. over that of last year. In appearance it is nearly an average, being but one-tenth below it.

**Grass.**—This crop is certainly injured very much from drought generally, and, in certain localities, from freezing out. The table for June shows it to be two-tenths below the standard appearance of a good crop. But great as is the value of the hay crop, being second only to that of corn, yet its deficit is always supplied by greater saving of the wheat and oat straw, and cutting up and topping corn.

**Flax.**—As was expected, this crop has increased over that of last year, in the amount sown, one hundred and twenty per cent. being in the June table 22, or twelve above the average of last year's crop. Should the drought permanently injure it so as to decrease the yield per acre of lint, yet, from this great increase in acreage, there is no doubt that the country will still have a good supply of lint out of which cotton flax may be made, should the experiments now making by this department prove successful for the conversion of lint into flax cotton. The quantity of seed will be largely increased.

**Wool.**—The tables show an increase in the number of sheep over those of last year of twenty per cent. Much has been said of the great clip of wool this season, many placing it as high as one hundred million of pounds. It is necessary to show what the increase is, and what is the crop of wool.

The number of sheep, by the census report of 1860, is 24,823,566, and the pounds of wool, 60,511,343. From this number of sheep is to be deducted 1,116,200 for mistake in the census report of those for Indiana. The rebel States produced 5,717,587 of the whole number, which must be deducted from it, as they are now represented in the



wool market. Kentucky and Missouri raised, in 1862, 2,039,601 sheep, and the ravages of war have destroyed largely of these. Deducting 1,000,000 on this account, and we have the following table:

Whole number in 1850.....	24,823,566
From which take—	
Mistake in Indiana returns.....	1,166,200
Sheep of the disloyal States.....	5,717,587
Loss in Kentucky and Missouri.....	1,000,000
	<hr/> 7,883,787

Number in loyal States in 1860.....16,939,779

The increase, in 1863, reported in the June reports to this department, is twenty-five per cent., and allowing it to be the same in 1861 and 1862, the whole number for 1861 would be 21,174,724, and in 1862, 26,468,405. This is the number from which the clip of 1863 was taken.

The average yield of sheep, per head, according to the census returns in 1850, was 2.42 pounds, and by those of 1860, 2.55 pounds. But this is clearly too low for the principal sheep-producing States of the north.

The number of the sheep of the loyal States was 17,198,219 in 1860, and the pounds of wool, 50,183,626, making the yield of wool 2.92 pounds per head. The number of sheep of the disloyal States was 6,097,587, and the pounds of wool, 9,748,702, making but 1.59 pounds per sheep.

The following table shows the yield, per head, of the following five large wool-producing States, according to the census returns of 1850, 1860, and the returns of the correspondents of this department in June of this year:

	1850.	1860.	1863.
New York.....	2.91	3.69	3.80
Pennsylvania.....	2.46	2.82	3.33
Ohio.....	2.58	3.33	3.53
Michigan.....	2.87	2.63	3.67
Vermont.....	3.35	4.02	4.53
Average.....	<hr/> 2.83	<hr/> 3.31	<hr/> 3.77

From all these data, it is safe to assume the yield in the loyal States at three pounds per head. The estimated number of sheep for last year being 26,468,405, the clip of 1863 would be 79,405,215 pounds.

**Sorghum.**—The increase of this crop, as stated in the June table, is twenty-seven per cent. In appearance, it is but little affected by the drought. Supposing that the increase, as given in the May tables, was too large, the inquiry as to the amount was renewed in the circulars for June, as the amount could be better ascertained. The greater number of the returns for this month are also in their favor, and hence the increase of twenty-seven per cent. is, doubtless, correct.

**Cotton.**—So far the appearance of this crop favorable. The dry weather enabled farmers to clear the crop from weeds and grass. During the drought it was but one-tenth below the average of a good crop; and, in amount, the increase is 80 per cent. over last year in the localities where it is now cultivated, which are much fewer than those of last year.

**Weather.**—Under this general heading will be found in the first four columns the number of counties which have made returns of the weather, and the character of it with reference to the crops. A good many correspondents did not make returns

of it, and hence their counties are not represented in the table.

The first column shows the number of counties where the weather was favorable to crops; the second, where it was dry, not injuring them, but holding them back; the third, where it was very dry, producing an injury to them, especially to grass and oats during the month of June; the fourth, where it was wet, so much so as to be unfavorable to wheat and the cultivation of corn. The fifth column shows the average amount of rain that has fallen during the month, expressed in inches and hundredths of an inch; thus, 150 means an inch and a half. The sixth shows the times when the rain fell, whether in the beginning, middle, or end of the month. The word "distributed" shows that the rain has fallen at different times during the whole month. The seventh column indicates the number of observations from which the mean of the amount of rain was derived. These statements of the amount of rain are derived chiefly from the reports of the observers of the Smithsonian Institution. Hereafter it is expected to prepare a separate table of the matters connected with the weather; but, as these reports are not in, it is thought best to connect them at this time with this table.

The table of the weather presents much that is highly interesting. In most of the States the month of June has been very dry, but in Kansas, Kentucky, and Missouri, there has been enough rain. In Ohio and Pennsylvania plenty has fallen, but during the last half only of the month. The report from Michigan is very extraordinary, showing a depth of rain of 19.07 inches, ten of which fell on one day.

The returns of the farmers corroborate those relative to the fall of rain, by the Smithsonian observers. They are, in other respects, exceedingly interesting. Thus we see in Kansas (which lies on the line separating the showery summer climate of the States from the dry one of California and New Mexico) the entire returns present an abundance of rain. So, too, but not quite to the same extent, are the reports from Missouri, of which, however, there are few on account of the war. But Iowa is the reverse of Missouri, reporting fifty-one counties very dry; Wisconsin has fourteen very dry, eleven dry against twelve favorable, and the entire returns from Minnesota exhibit every county as very dry. Why this remarkable difference between Kansas and Minnesota? Again: all the States lying east of the great lakes have had much more rain than those south of them during the first three weeks of June. Whence have these rains come? Were they produced by the cold west winds condensing the evaporation from the lakes? And why do Kansas and Missouri receive so liberally from the evaporations of the equator, whilst the States north of them have so little, and Minnesota none? The answer to these questions, to be understood, must be preceded by an explanation of that wonderful atmospheric machinery which the Creator has designed for the diffusion of heat and the distribution of moisture. The reports for the Smithsonian Institution must be closely scrutinized as to the temperatures, the direction of the winds and clouds, and the altitude of each place of observation. An article on these matters will be prepared for the ensuing monthly report.







## JUNE REPORT — CONTINUED.

## WEATHER.

	Favorable.....	Dry.....	Very dry.....	Wet.....	Inches of rain.	Distribution of rain.	Number of observations.
Connecticut .....	2	1	3	.....	2.52	Beginning.....	One observation.
Delaware.....	2	1	.....	.....	.....	.....	.....
Illinois.....	24	15	39	3	0.94	Middle and end...	Mean of four observations.
Indiana.....	25	13	15	...	0.84	End .....	One observation.
Iowa .....	9	11	54	.....	1.46	Edd .....	Mean of four observations.
Kansas .....	36	.....	.....	.....	5.95	Distributed.....	One observation.
Kentucky .....	4	1	3	.....	4.26	Distributed.....	One observation, Louisville.
Maine.....	1	4	6	2	1.71	Beginning.....	Mean of three observations.
Maryland.....	4	3	6	...	1.83	Distributed.....	Mean of two observations.
Massachusetts .....	9	8	6	1	2.01	Distributed.....	Mean of three observations.
Michigan.....	20	12	5	.....	19.07	Distributed.....	On the 22d day, 10 inches.
Minnesota.....	.....	.....	28	.....	0.27	Middle and end ..	One observation.
Missouri .....	5	1	2	.....	3.59	Distributed.....	One observation.
New Hampshire.....	1	4	3	.....	2.70	Distributed.....	One observation.
New Jersey.....	8	5	4	.....	1.04	Distributed.....	One observation.
New York.....	31	14	8	9	1.67	Distributed.....	Mean of five observations.
Ohio.....	12	14	22	.....	2.43	Middle and end..	Mean of nine observations.
Pennsylvania.....	30	9	34	.....	3.36	End generally....	Mean of seven observations.
Rhode Island.....	2	1	2	.....	.....	.....	.....
Vermont.....	10	3	3	1	2.22	Distributed.....	Mean of three observations.
Wisconsin.....	12	11	14	.....	1.27	Distributed.....	Mean of two observations.
Nebraska Territory.....	.....	.....	.....	.....	2.84	Distributed.....	One observation.
Canada East.....	.....	.....	.....	.....	1.14	Distributed.....	Montreal.

## UTAH.

Whilst reading proofs, the June return from the board of directors of Deseret Agricultural and Manufacturing Society has been received.

Winter wheat is not so well adapted to Utah as spring wheat, of which 6,000 acres are now sown. Its appearance is fair.

Corn and oats are good in appearance.

Tobacco was growing well, but was regarded as an experiment only.

Grass was suffering from drought; the number of acres in meadow was 1,500.

The wool crop was estimated at 60,000 pounds and the number of sheep at 20,000.

Weather on the first of July was dry.

## Routes to the East.

It is a matter of surprise, not to say of actual unbelief, to many, if not most of the people of the Northwest, West and Southwest, that from Green Bay and LaCrosse, on the North, to Cairo and St. Louis, on the South, the *shortest route* to New York, Philadelphia and Baltimore, lies through Pittsburg. When we add that this route, so generally supposed to be a circuitous one to New York, is actually nearly *one hundred miles* shorter than the route via Toledo, Buffalo, and Albany, and *sixty miles* less distance than

via Toledo and Erie Railway; this fact becomes only the more astounding to the large number of persons who have heretofore regarded Buffalo as on the direct line to New York. A further advantage of the route via Pittsburg is, that there is *but one change of cars* between Chicago and New York or Philadelphia, an advantage of great moment to ladies and families, and withal of no less comfort to business men. All these advantages can be secured by buying your ticket to the East over the Pittsburg, Fort Wayne and Chicago Railway, which can be had in Chicago, and at all the Ticket Offices of all prominent lines in the West.

The reduction of fare just made by this line, to \$18 from Chicago to New York, a *privilege belonging to the shortest line to make the rates*, should induce our people to try this new and admirably appointed line, whereby they can reach the East in *less time* and for a lower fare than by any other route.

## Those Trees.

On our recommendation several persons have tried the following receipt, published by us a few

weeks since, for the preservation of their locust trees, and with admirable effect:

Bore a hole into the heart of the tree; put into the same from thirty to forty grains of calomel, and then plug the hole tight. A trial of this recipe has completely stayed the ravages of the borer, and saved the trees. Quite a number of men have tried it, and more are about doing so. In one case a gentleman in town had, on several still evenings, by listening, heard the borers at work; but since putting in the calomel he has heard nothing of them, neither does he discover any fresh dust at the foot of the trees.

All should try it immediately.—*Ex.*

—Well, try it, as we think it a good place for calomel, much better than to be taken into the stomach of any member of the farmer's family. By all means dispose of all the calomel on hand, but we would make no new purchase for this purpose.

*Ed.*

### Seeds---Thickness of Sowing.

A pound of barley contains about 15,000 grains; if three bushels be sown on an acre, it will average 500 grains to every 3 feet square. In a pound of turnip seed, there are computed to be from 180,000 to 200,000 seeds; if three pounds be sown per acre in rows 2 feet apart, every yard in length will contain about 100 seeds. In order to present this subject in an intelligent light before the reader, the following table is presented:

Plants.	No. of seeds per lb.	No. seeds sown per acre.
Wheat.....	10,000	1,000,000
Oats .....	10,000	3,000,000
Barley.....	15,000	2,500,000
Rye.....	20,000	8,500,000
Beans.....	1,000	140,000
Peas.....	2,000	300,000
Turnips.....	180,000	500,000
Mangel Wurtzel.....	*20,000	140,000
Carrots.....	200,000	1,400,000
Parsnips.....	100,000	700,000
Rape.....	120,000	1,200,000
Vetches.....	8,000	1,800,000
Sainfoin.....	20,000	2,000,000
Lucerne.....	200,000	3,000,000
Flax.....	100,000	15,000,000
Red Clover.....	250,000	2,500,000

\*Every Mangel seed is a capsule, containing two or three seeds.

Grass seeds vary in number from 500,000 to 3,000,000 per pound, and in weight from 4 or 5 pounds, in case of meadow Fox-tail to 49 pounds as Timothy, for example, per bushel—from 2 to 10 pounds being sown per acre in mixture with other grass seeds. These statements serve to give one an arithmetical estimate of the thickness of seeding in case the seeds are good, and are well covered.—*Ex.*

### The Locusts Gone.

The dismal music from field and wood that greeted the ears of the people throughout a wide range of Eastern Ohio during the hot days of June and well into July, is stilled, and "all is quiet" on the Tuscarawas, and in the valleys of other famous

sections in that region. The locusts have departed—retreated, fled, and not even the veriest scout can find the line of their retreat. But that they "fall back" terribly "demoralized," so much so that they will not be able again to marshal their hosts for seventeen years, is not doubted. The *Canton Repository* thus speculates on their sudden "taking off."

"The holes in the ground from which they emerged, are not all closed up yet, but it is not probable that they have departed by the same avenues through which they came; and it is equally improbable that they have been smitten with a sudden disgust with the world and dug into the earth again, to wait for seventeen long years for 'something to turn up,' before they accept naturalization papers. Neither is it probable that they have concentrated as the birds do in the autumn, for a grand flight southward to re-inforce that other pest which flaunts a uniform of their color; for one pestilence at a time will do in a country, especially if that evil takes the hideous shape of secession, and were there not valid reasons against the theory of their southern migration, there is still a potent one remaining, that is, the sun of the Cotton Confederacy has set in eternal darkness, and even locusts, stupid as they are, have a weakness for the sunshine."—*Ohio Farmer.*

### The way to Prevent the Ravages of the Chintz Bug.

That this bug is a very troublesome and destructive insect is admitted by all farmers. Much has been written concerning its destructive qualities, and the desolations which follow in the train of its operations. Some remedies have been proposed for its destruction, but hitherto without much success. In order to become successful with the cure it is necessary to become acquainted with the producing cause of the vermin. This cause is the poverty of the soil. The agriculturist exhausts the soil without any, or with but small recuperation of its exhausted powers, and the result is, the production of these destructive little insects. Just like poor, half fed, half cared for cattle, producing lice, and other insects, denoting poverty and wretchedness. We were taken through a large field of a thrifty, experimenting farmer, as he was cutting his wheat last week, and he gave us his experience thus.—This part of the field, said he, is sadly injured by the bug, there are not more than eight bushels to the acre if so much. Then he showed me the bug on a stalk of corn close by, where there were hundreds of them, as they had fled from the wheat to the corn. We went on, and came to where the wheat was as fine as you could wish to behold. Higher, thicker, firmer, noble ears, and taking two in his hands and rubbing out the grain, he showed me as fine, plump kernels as it was desirable to see. This part of the field said he, I manured, and spread it well over the ground, and plowed it down in August, and here there are no chintz bugs, and I have three times as much grain and straw, as where there was no manure put. And I am persuaded that the chintz bug is the result of the poverty of the land, for the soil and plowing are the same, and it has had the same crops, and nothing but the manure has made the difference. I would advise farmers to experi-

ment, in this manner, it will pay. Let your plowing be done in August or early in September, and this will bring better crops and less vermin.

—The above we cut from the Bureau county *Republican*; by the way a well conducted and live paper. And we have observed from time to time that the editor takes a deep interest in agricultural matters, and we therefore read his pages with much interest, but as he has been lead into one or two errors in his visit to the chintz bug, or rather has drawn some erroneous conclusions, we insert the article with the view to point them out.

GOOD CULTURE, is a remedy for the chintz bug, for when the crop is vigorous, the attack of the insect is less apparent, as he can only suck the juices from the lower leaves, while the others sustain the plant; and the yield is but little diminished. Thus far the principle holds good, but there is one or two things more to be considered. Early sowing so as to bring the crop forward in good season before the insect has had time to accumulate in large numbers is one of, if not the best remedy, for so soon as the straw gets hard the bug leaves it for some more succulent feed. Suppose we take a field of spring wheat sown early, good soil and well put in, one half well drained, and the other half more moist, the dry part will come forward faster, and will be ripe before the more moist part. We will suppose this field to be alike stocked by the bug which has been bred alike all over the field, and at once commences that progressive ratio of promotion that makes the crop swarm with the foetid rascals. Now let us observe from day to day the progress of the insect; like a vast army he moves towards the more succulent grain, and leaves the more advanced to ripen and fill out to its utmost, but alas, for the immolated portion, it is now to be borne down with a double portion of the army of invasion and must yield. The result is that part of the field is nearly ruined and a part has turned off a heavy crop.

In putting on manure there was nothing more natural than to put it on the dryer and apparently poorer portion of the land, this stimulated the growth of the straw, and hence a heavy crop. But had the season been more moist, so as to have given a large growth of straw, the manure plowed under in August would have been more disastrous to the crop than the chintz bug, for between lodging and rust it must have succumbed entirely.

The conclusion at which the editor arrived, that manure and high culture is the remedy, should be taken with some allowance. Very true, it has succeeded in this instance, but the manure part might be unsafe to repeat the next. We suspect that the secret lies in the August plowing, to which we have before called the attention of our readers.

Mr. S. W. Arnold, of DeKalb county, who is one of the most successful growers of spring wheat, plows in August for this crop. So soon as his oats, barley and other crops has been drawn from the field the plow follows at once. By this he has all the advantage of a summer fallow without its expense.

With a proper soil, early and thick seeding, thorough harrowing and rolling so as to insure rapid growth and early maturity, we have as yet to see the first material damage to a crop of spring wheat by the chintz bug.

### Fall Plowing for and Culture of Spring Wheat.

Fall plowing in the north part of the State has become one of the settled principles of successful farming. It has doubled and quadrupled the area sown to spring wheat, oats and barley, has increased the product and materially lessened the cost. Without fall plowing no remunerative crop of spring wheat could be grown, from the simple fact that the crop must be sown as soon as it is possible to harrow in the seed. It has been often proved that sowing spring wheat on corn stubble without fall plowing is better than to plow. If this is the case, there must be some good reason for it, and this reason must be the late season at which the plowing can be done, or in placing at the bottom of the furrow the free potash that the earlier autumn months had disintegrated for the next crop, and which must be near the surface. Taking this as a hint, we should plow early, so as to give the surface the longest possible time for exposure to the elements. It matters little to us what this change is, so long as we know the condition exerts such a decided effect on the new crop. We may therefore lay down the rule, that the longer the surface is exposed after plowing, so much the better, unless we have a green crop to plow under, which will supply the needed element of growth.

Some of our best farmers make it a rule to plow as soon as possible after harvest, for all land intended for wheat or barley. As oats are sown later and appear to do nearly as well on spring plowed land, the plowing for this crop is often passed over to the spring work, but this is bad policy, and should be corrected. If our farmers would plow their spring wheat land in August and September they would have much better crops. In the culture of spring wheat we have several points to attend to:

- 1st. Early fall plowing.
- 2d. Seeding at the time the frost is leaving the ground.
- 3d. Thorough harrowing and rolling.
- 4th. The bearded are better than the bald varieties.



## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, AUGUST, 1863.

AUGUST has been preceded by a dry month in most parts of the State, and the corn crop is at the crisis. Without more abundant rain and a hotter sun the yield will be small. At this writing we think the prospect is for only half a crop, but August has the greatest influence on this crop and to its keeping the crop must be consigned for weal or woe.

### State Fair.

Our readers should not forget the State Fair, to be held this year at Decatur, Sept. 28th, 29th, and 30th, and Oct. 1st, 2d, and 3d.

The grounds are among the first in the State, and easy of access, being near the junction of the Illinois Central and Great Western Railroads.

The location is in the midst of a beautiful grove and contains one thing in abundance that no other State Fair can boast, and that is pure water in abundance. This is supplied by a fine spring that pours out its cooling treasures in no stinted supply. In addition, a small branch or brooklet runs through the lower parts of the grounds. In the center is a natural amphitheater, level as a house floor and of ample size.

Decatur is a thriving city and fully alive to the interests of the coming Fair, and we may expect to see every thing in order.

We anticipate a fine show and large attendance.

### Trial of Implements.

The week previous to the State Fair to be held at Decatur, the Society is to have a grand trial of farm implements. This will bring out the plows, cultivators, rollers, harrows, threshers, etc. We have no doubt that it will be an interesting time. The Executive Committee have had no little experience in these trials, and ought to be able to manage it in the most admirable order. Our mole and tile draining machine makers should be on hand, as the people are now ready to give both a fair trial. The tile is good everywhere, while the mole answers a good purpose in all clay bottomed low grounds.

### A Fruit Picker.

A few days since we received per express the

above instrument, from Elias Hibbard, of the firm of E. & J. H. Hibbard, booksellers, Alton, Ill.

It is a light rod of pine, with a small rod cut out of the same, and which by bands works in its own groove. At the end is two cups working against each other to grasp the fruit, one specimen of which it takes at a time.

It is a most admirable contrivance, by which to pick soft fruit from the top of the trees, certainly ahead of those operated by a cord. The gearing works very nicely. Its cost can be but a trifle compared with some of the fruit pickers in use, is light, and can be handled by ordinary sized boys and girls. We trust they will soon find a place in all our seed and implement stores. It is just in time for our use to take down ripe specimens without bruising. We should not think it intended to pick winter apples for market, but to pick the more delicate summer fruits.

Here is a tree of the Red Astrichan with half a dozen beauties up out of the reach of the step ladder, shaking off is the only way to reach them, and they will come down sadly bruised, but with "Hibbards Fruit Picker" the thing is done, and the apples as fair as when perched out of reach.

MARKETING OF APPLES.—In the marketing of apples, in many parts of the State, it is the practice to put in all sizes and qualities as they are found on the trees, both sound and unsound. This we have so often seen, that it appears almost if not quite the rule. Of course, when such fruit reaches the city market it is at once assigned its place, and a corresponding price is determined for it. But too often this mixed fruit is sent to customers along the rail roads, at small towns, who have ordered and paid for it in advance.

The law is plain on this point, that all goods of the kind shall be merchantable. But the remedy in this case is inadequate and only the reputation of the farmer suffers, but not in dollars, for the demand is good, and some new customer comes up to be victimised. In most cases, as much or even a better price could have been obtained by carefully assorting the fruit and selling the best at a higher price, and either make cider of the refuse or sell it at a less price. No fruit grower can afford to send bad fruit to his customers, even if he gets the pay in advance, for it will sometime come up against him, when he may least desire it.

In the harvesting of the apple, it is too often the case that they are shook from the tree; tumbled into a wagon and carted to market. Such fruit sells at about half price. Thus by a bad or careless practice, half of the value is lost, and this too in a country not over supplied with fruit. When

apples were worth ten or fifteen cents a bushel, this practice might be admissable, but with it worth fifty cents to a dollar a bushel, does not smack much of economy. Scarcely anywhere in the West sufficient pains taken with the apple in either picking or packing to insure it full value, even the long keeping varieties are more or less rotten long before the limit of their season, and retailers always expect to find at least one fourth of their purchase as unfit to sell. There is no good reason for this practice, for if the fruit is properly handled but little of it will prove unsound before the usual time at the end of the season of its maturity.

**CULTURE OF BLACKBERRIES.**—The field culture of this fruit is as yet little understood, and further experiments is needed to determine the best mode. The distance at which to set the plants, the best form to prune, staking or trellising, all have yet to be determined. We have no doubt that this fruit will soon be among the leading cultivated small fruits. In most cases it has not proved as hardy and productive in the field as in the wood-land, but by a substitution of hardy and productive plants this will soon be overcome. We are satisfied with the variety we have, and these are simply selections from the forest. We have been some years in testing them, and growing a stock of the plants, and now are ready to try field culture on a somewhat grand scale. In the culture of the raspberry we have set the plants four by six feet, but this is probably too close for the blackberry, we see some growers recommend ten feet, and allow the plants to stand a foot apart in the rows. This looks like giving considerable space to the rows. After all, the distance of the rows must depend on the mode of pruning. If the blackberry will bear the shears like the raspberry, six feet for the rows will be sufficient, but if we have to cut back during the summer to obtain side shoots, more space will be needed.

We are inclined to make trial at eight feet by four, requiring about a thousand plants to the acre. As plants only cost about fifteen dollars a thousand, it will not be expensive to make trial of an acre. We do not apprehend that either stakes or trellises will be required. That the Lawton must give place to improved varieties we are well satisfied, as it lacks two essentials to a good berry—one of which is hardening, and the other richness of flavor. The first of these is important in the northern part of the State. The Lawton is a good berry to send a long distance to market, as it is very solid when first colored, requiring some days to perfect. If left on the bush till dead ripe the Lawton is quite palatable, but this condition is not often reached

with this fruit, as the picker seldom stops to consider other than the black color in picking the fruit, and it goes into the basket in all stages of maturity. This is not the case with our improved natives, which are eatable so soon as they are fully colored, and require much less sugar than the Lawton.

Aside from its value as a food, the blackberry is valuable in all bowel complaints. A syrup made of the fruit without crushing the seeds, boiled down and preserved in sugar is both simple and efficacious.

**HAINES' LEGAL ADVISER.**—This is a valuable work for farmers and business men. It keeps them posted in regard to changes in the law and decisions of courts. In this respect it is not valuable to the lawyer or court officer as it prevents too many suits for their profit; but all the better for community.

We have Haines' Treatise, a work costing five dollars, which my neighbors consult instead of our Attorney. It has saved them half a dozen suits and much ill feeling. For the Legal Adviser, address \$1 to E. M. Haines, Chicago, and for the Treatise \$5, it may save you a fifty dollar law suit and the necessity of seeing an attorney to make a guess at the law, while this will give you the facts. Here is a sample:

"If A agrees with B to work for him one year, or any stated time, for so much a month, for so much for the whole time, and, after working a part of the time, leaves B without good cause, the question arises whether A can recover anything from B for the service he has rendered; and at this time the question must be considered as somewhat unsettled at law. It is universally conceded that he cannot *on the contract*, because that is *entire*, and is broken by A, and therefore A has no claim under it. And it is the ancient and still prevailing rule, that A can recover nothing in any form or way. It has, however, been held in New Hampshire, that A can still recover whatever his services are worth, B having the right to set off or deduct the amount of any damage he may have sustained from A's breach of the contract. We think this view just and reasonable, although it has not been supported by adjudication in other States. If A agrees to sell to B five hundred barrels of flour at a certain price, and, after delivering one-half, refuses to deliver any more, B can certainly return that half, and pay A nothing. But if B chooses to retain that half, or if he has so disposed of or lost it that he cannot return it, he must, generally, at least, pay what it is worth, deducting all that he loses by the breach of the contract. And this case we think analagous to that of a broken contract of service; but B's liability to pay, even in the case supposed as to goods, has been denied in New York."

**BEANS.**—Do not cultivate the bean when wet with either dew or rain.

**RAIN FOR JUNE.**—To show the vast inequality of the rain fall at different points in the State. We copy from the report of the committee of agriculture, as obtained from the Smithsonian Institute. It will be seen that the report is for the north part of the State:

Illinois.	County.	Inches.
Peoria.....	Peoria.....	.45.....
Manchester.....	Scott.....	.80.....
Augusta.....	Hancock.....	.26.....
Reily.....	McHenry.....	1.40.....
Dixon.....	Lee.....	7.03.....
Galesburg.....	Knox.....	.....
Waverly.....	Morgan.....	.25.....
Elmira.....	Stark.....	.20.....
Sandwich.....	DeKalb.....	1.26.....

For that part of the State the rain for a series of years for May, is as follows:

Year.	Inches.	Year.	Inches.
1855.....	5.1	1856.....	4.4
1857.....	2.9	1858.....	8.1
1859.....	4.3	1863.....	3.4
Average from 1859 to 1863, inclusive.....3.50			

Thus it will be seen that we have had a dry June. At this place we had a shower the last week in May and the last week in June. We may write down May as a wet month for the year 1863. But June is yet worse, and Dixon is the only place that was blessed with an abundant supply of rain.

The average for the above five years, for June, is 3.6 inches, this year 1.45 inches. Kansas has nearly six inches, Michigan and New Jersey ten and a half. Nearly all of the States show very dry weather, in which the potatoe crop will of course be involved and the fruit crop seriously injured.

**OHIO POMOLOGICAL SOCIETY REPORT.**—This is one of the most practical and valuable reports sent out by the society. It embodies a complete revision of the fruit report of Ohio, made by the American Pomological Society. The discussions are not as extended as usual, as most of the time of the last meeting was occupied with the revision. The State was divided into five geological districts and the lists made for each.

By the way, we learn that our State Geologist has or contemplates the same number of fruit districts for our State, numbering them according to their value. If we are rightly informed he will do well to correct the list before publishing it.

Ohio is comparatively an old State, and orcharding has progressed beyond experiment in most parts of it, hence the fruit growers are now enabled to get at valuable facts. With us, the case is somewhat different, and we must, of necessity, grope our way as yet to some extent.

This year will bring in new facts and the renewing of old ones. In this report will be found much

of interest to our fruit cultivators. The report can be had of M. B. Bateham, Columbus, Ohio.

We are pleased to see our old friend Dr. Warder elected President of this important Society.

**EARLY WHEAT.**—The *The Genesee Farmer* says that since the advent of the midge the great aim of the wheat grower has been to get a variety that will come into flower a few days before the midge flies make their appearance. The reason why the Mediterranean is so much less liable to injury by the midge, (erroneously called the weevil,) is its earliness. But it is a wheat of comparatively poor quality. What is wanted, the *Farmer* says, is a variety of white wheat "as good as the Soules, and as early as the Mediterranean." If such a variety can be found, it is hoped that it will be exhibited at the great International Wheat Show to be held at Rochester, N. Y., September 8, 9 and 10, 1863. Such a wheat, the *Farmer* asserts, "would be worth millions of dollars to to Western New York alone."

**A NEW BLACKBERRY.**—In the summer of 1859, we visited South Pass in the season of blackberries. We observed a great variety of forms, size and of flavor. Among them a large round fruit similar to the Lawton, the fruit of which was very rich and the plants productive; these were duly marked, and in the following spring sent to us. These have now been growing in our grounds since that time, and are now producing an immense crop of delicious fruit far superior to the Lawton, and we think equally productive. This is the third season, and so well have they pleased us that we intend to cultivate them instead of the Lawton. They have not been protected in the least, and thus far have proved hardy.

We do not intend to make a blow over them to sell the plants at a round figure, but shall send them out at the usual rate for Lawtons, say \$2 per 100, or \$15 per 1,000.

We intend to try the same plan with the blackberry, that is, cut it back within two feet of the ground during March. In this way they will be easily cultivated and the fruit can the more readily be got at. We cannot say how it will succeed, but if it should it will make this fruit a great favorite.

**TREE PROTECTORS.**—James Weed, of Muscatine, Iowa, has invented a shelter for peach and other fruit trees. We have examined the plan carefully, but fail to see any particular advantage in its use. It is too expensive an invention in its results—better use a fruit house at once, and grow the trees in tubs.

**THE GREAT INTERNATIONAL WHEAT SHOW.**—Notwithstanding the injury wheat has sustained in some sections from the midge and from rust, it is thought that the International Wheat Show to be held at Rochester, N. Y., September 8th, 9th and 10th, 1863, will be a great success. Competition is open to the world. Premiums are offered amounting to five hundred and forty dollars, and the time of holding the show has been fixed so that the wheat exhibited will be in demand for seed. On the last day of the exhibition a public auction will be held on the ground at which the exhibitors can offer their wheat for sale.

We are requested to state that parties from a distance who cannot attend the exhibition may forward their wheat and have it entered. Full particulars can be obtained by addressing the president of the society, Joseph Harris, Rochester.

**EVERGREEN SEEDLINGS.**—The business of growing evergreen seedlings at the west, has not been generally successful on any account of our dry seasons.

A few years since, Robert Douglass, of Waukegan, made the experiment and has been very successful. The combinations in his favor are sandy soil, and the moist lake climate. Other points at the south end of lake Michigan will doubtless prove valuable for this purpose. We learn that Mr. D. will have a great supply for his customs next season, but was short 50,000 last spring.

His prices are very low. Send for his catalogue before you make your order.

See his card.

**ILLINOIS WOOL GROWERS CONVENTION.**—The Secretary of the State Agricultural Society, authorizes the announcement that a Wool Growers' convention will be held at Decatur during the week of the approaching State fair. The day will be announced on Monday or Tuesday of the fair.

The Society's tent will be erected on the public square in the city, for the accommodation of farmers' meeting and this convention.

**STATE FAIR.**—We learn that good progress is being made in regard to the State Fair, at Decatur, and that the prospect of a good turn out grows brighter every day. The trial of implements bids fair to be a spirited one, and will doubtless be largely attended. We notice a call to the corn cultivator men to plant a field of corn in which to try the machines. Why not the society attend to it themselves?

**BUCKWHEAT AND TURNIPS** make but a poor show, as the soil is too dry for them, and they look like failures.

**THE GRAPE CROP** thus far is very promising, we hear of very little rot, while the vines are loaded. Grape culture is receiving a liberal attention, and the prospect is that most farmers will have the grape in their grounds—the absence of it has been the rule heretofore.

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## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:

1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.



## Advertisements.

**BUY THE BEST!—**

**IT IS THE CHEAPEST IN THE END!**



The Railway Horse Power which took the

**FIRST PREMIUM**

AT THE

## New York State Fairs of 1861 & 1862.

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others! This, they believe, cannot be said of any other Power exhibited at an equal number of Fairs.

**COMBINED THRESHERS AND CLEANERS,**

**Threshers, Separators, Wood Saws, &c.**

All of the best in market.

These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of horses, being only about  $1\frac{1}{2}$  miles per hour when doing a good fair business, which is about 300 to 500 bushels of oats per day, or half that quantity of wheat or rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business, without waste or clogging, than any other two horse cleaner before the public.

For price and description send for circular, and satisfy yourself before purchasing. Address  
R. & M. HARDER,

je2m\* Cobleskill, Schoharie Co., N. Y.

**Sanford & Mallory's Flax and Hemp Machines.**

These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address  
NELSON STILLMAN,

General Agent, Chicago, Ill.

P. O. Box 5823.

May 1863.

## MALTESE JACKS.

**TWO** just imported from the Island of Malta, selected with great care for breeding purposes. They are three years old, 14 and  $15\frac{1}{2}$  hands high.

Address, S. B. CARUANA,  
71 Pine street.  
E. C. ESTES,  
73 Hudson street.

New York, May 14.1m

## EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5.00

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old, six to nine inches, \$8.00

SCOTCH PINE, two years old,  
three to five inches, \$7.00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARVITE, &c., &c., of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the best varieties for the West.

A large stock of RED DUTCH CURRANTS, the best for market, two to three years old, at half the usual rates.

STANDARD AND DWARF PEARS, of well tested varieties, together with a good assortment of Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.  
WAUKEGAN, ILL.

ROBT. DOUGLAS.  
tf

## TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD. \$55 per 1,000.

A few thousand of bearing age, of large size at  
\$75 per 1,000.

These will produce a good crop the second year.

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ten for a dollar.

REBECCA, \$10 per 100.

DIANA, \$10 per 100.

The above will be well packed,  
to go any distance.

TERMS—Cash, or approved bank paper of  
short date.

JAMES SMITH.

DES MOINES IOWA, Jan. 1, 1863.

## GENUINE TREE COTTON SEED.

A limited quantity of the above seed can now be obtained if applied for soon, of

**EDWARD TATNALL, Jr.,**

Brandywine Nurseries,  
WILMINGTON, - DELAWARE.

This seed was procured at considerable expense by William Ferris, of the above city, from the mountain regions of South America, having been conveyed thence by mule, "seven days journey" to Guayaquil, where this gentleman resided nearly three years, and made himself acquainted with the fact that this cotton thrives, and is cultivated on the elevated lands of the Andes, of which it is a native. His object was to introduce it into our Northern and Western States, believing if it would stand their climate (and where it now grows it is frequently covered with snow and ice) it would prove a source of great interest and profit to the people of those States.

As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State. Apr2m

## WANTED. KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$50. Weight 45 pound. Freight from 50 cents to \$1.50. Send for circular and samples, (send stamps.)

BRANSON & ELLIOT,  
General Agents,  
120 Lake street, Chicago, Ill

Apr'63 ly

## HOVEY'S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Novtr 1862 No. 194, Lake st., Chicago Ill.

## BLOOMINGTON NURSERY BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees

200 NAMED SORTS TULIPS, ALSO HYACINTHS, Crocus, and a general assortment of Bulbs and Flower Roots for Fall and Spring planting. Nursery stock, Evergreens, Greenhouse and garden plants—all at wholesale and retail at lowest cash rates.

For particulars see Catalogues or address subscriber. F. K. PHOENIX.

Bloomington, Ill., Aug. 1, 1859.

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

Address, M. L. DUNLAP,  
Champaign.

March 1, 1863.tf

## GEORGE S. THOMPSON,

Late of Com. Gen.'s Office,

Attorney for U. S. Military Claims,

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House of Messrs. N. H. Ridgely & Co.

Having had much experience in prosecuting claims against the United States, particular attention is given to Recruiting Bills made by officers and men of volunteer companies and regiments, for subsisting, and, collecting, organizing and transporting troops prior to muster into service; Back Pay due Resigned Officers; Back Pay due Discharged Soldiers; Pay due Deceased Officers, their Widows or Heirs; Bounty and Pay due Heirs of Deceased Soldiers; Pensions due Deceased Soldiers' Widows and Minor Heirs; Pensions due Invalid Soldiers; Pay for Horses lost, killed or died in the United States' service; All Claims growing out of the Present War.

Pensions collected semi-annually, from the Agent of the United States at Springfield.

Any kind of claims for service, or for property destroyed, stores or property sold officers of the United States.

Would respectfully refer to Messrs. John Williams & Co., Bankers; J. C. Bunn, Esq., Banker; Capt. C. B. Watson, U. S. Mustering Officer; Lieut. Geo. W. Hill, U. S. Mustering Officer; Major C. S. Hempstead, U. S. Paymaster; Capt. Ninan W. Edwards, U. S. Commissary; Captain W. H. Bailhache, U. S. Quartermaster; Col. P. Morrison, 8th U. S. Infantry, Superintendent Recruiting for Regiments of Illinois, Springfield, Ill. Major J. G. Fonda, 12th Ill. Cavalry, Commandant at Camp Butler.

August, 1862.tf



**FAIRBANKS'**  
STANDARD  
**S CALES**  
OF ALL KINDS.

Also, Warehouse Trucks, Letter Presses, &c.  
**FAIRBANKS, GREENLEAF & CO.**  
172 LAKE STREET, CHICAGO,

Sold in Springfield by

E. B. PEASE.  
June 1-ly

# The Illinois Farmer,

A MONTHLY JOURNAL OF  
AGRICULTURE AND HORTICULTURE.

PUBLISHED AT  
SPRINGFIELD, - - ILLINOIS,

BY  
BAILHACHE & BAKER,  
AND IS EDITED BY  
M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside. The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign, Illinois.

All business letters are to be directed to the publishers, Springfield.

## TERMS OF ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	8	\$20	\$35	\$50
Half a page or one ".....	5	12	20	30
One fourth page or half column..	3	7	12	18
One eighth or one fourth ".....	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00

Ten cents a line for less than a square each insertion.

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

We have put the price of advertising within reach of all. It will enable those who like to freely advertise their goods, to do so at a cheap rate.

Terms, cash. Yearly advertisers will pay semi-annually, and all transient advertisements must be accompanied with the cash to insure insertion.

BAILHACHE & BAKER, Publishers,  
Springfield, Ills.

## THE ILLINOIS STATE JOURNAL

IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

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Ten " ".....	12 00
Twenty " ".....	20 00

Payable always in advance. Persons sending clubs of ten upwards shall be entitled to an extra copy.

Address BAILHACHE & BAKER,  
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## APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX, lsq3m Pulaski, Oswego co., N. Y.

## A GOOD INVESTMENT.

ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

GENERAL AGRICULTURE,  
STOCK RAISING,  
HORTICULTURE and POMOLOGY,  
And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

## LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

## FORM OF PAPER.

The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

## CONTENTS.

About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

## A NEW VOLUME

Commencing January 1st, 1863, and the present time affords the best time to form clubs for the year.

One copy one year.....	\$2 00
Two copies one year.....	3 00

Larger clubs furnished at liberal rates, or premiums given where clubs of six or more are sent at \$1 50 each.

Specimen copies and show bills sent to any one who desires them for examination or the purpose of raising a club.

For sale by news dealers generally.

For samples or other information concerning the paper, address

EMERY & CO., Chicago, Ill.

# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., SEPT., 1863.

NO. 9.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,


PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

 EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### September.

This is the month of Fairs, the month of fruits, and the month of comparative leisure for the farmer. The weather is generally mild, that is, more soft and genial, "the dreamy days" of the poet, so acceptable after the heated harvest when all was hurry and arduous toil. Yet there is much to do, not that hard-handed toil of the summer, but many light and pleasant tasks. The grain-grower is busy with his seeding of winter wheat and the marketing of the season's crop. The stock-grower is comparatively idle, looking over his herd and separating those that go to the butcher from those that are to be stall fed, or wintered over. The gardener is

clearing up his grounds, taking care of melons, beans, etc. The orchardist is looking after the cooper, that his stock of barrels may not come short when wanted. Many of his fruits are ready for market and the crop of windfalls needs a daily looking after. What with the windfalls that go to the cider press, the ripening fruit ready for the market, he has little time for play, though his labor is not severe, and still further lightened by the beauties of the bending orchard, glowing with its rich load of luscious fruits.

When the farmer combines all of the above departments, which is denominated mixed husbandry, much of his time will of course be pretty well occupied in looking after the various interests, and in giving directions to others as to how and where the work is to be done.

September is the dividing time between the cereals, or summer harvest and the vegetables, or autumn harvest. In the north part of the State, the early frost begins to encroach on the domain of summer towards the last of this month, while in the central portion it is reserved to a later date, generally to the tenth of October.

The season has been a most singular one, and the crops have of course been varied. In places failures of one crop has occurred, and in others of abundance, so that on the whole, the average

will fall little below the usual figures.

The plowing of the stubble land should now be prosecuted with some energy; and if new orchards are to be set, the land should be put in order for the next month, as then we must begin to plant.

If you need a new well or cistern now is the time to have them attended to, and not leave them for the fall rains.

### A Chapter on Beans.

To know or not to know beans has for a long time been considered a desidered a desideratum. Without pretending to any great light on the subject, and premising that with the exception of the Lima, we seldom eat them in any form, whether snaps, succotash, baked or in broth, in fact we are not fond of beans for food. But as several members of our family are fond of the article, and as they are also a profitable crop, especially in the orchard, we plant them extensively.

Last Spring the Commissioner of Agriculture sent us a collection of beans which we planted, and for the benefit of the bean eating public we give the result of the season's trial.

**LIMA.**—These were planted May 10, in rows four feet apart, and hills same distance in the row, they should have been two feet in the row. Have used no poles, and they begin to ripen, giving promise of a good crop. The family make exclusive use of these for succotash and otherwise, in fact, since the first of August they have been the only bean allowed on the table. The Lima of the Department is the same as those had of Hovey, of which we have an acre in crop. We find it no more trouble to grow the Lima than the Navy, with the exception of planting and harvest-

ing. Our machine will not drop them properly, and we have to do it by hand, and in harvesting they are not so easily disposed of.

All of the following were planted May 5th, and have had the same treatment.

**HORTICULTURAL BLACK BEAN.**—This is a pole bean and one of no value in our estimation. We shall throw it out. It is not yet ripe and only moderately productive.

**EARLY VALENTINE.**—Not yet ripe, and cannot therefore be considered very early. It is however a very pretty bean, but not sufficiently productive to recommend it; shall leave it out of our list.

**DUN COLORED BEAN.**—This is rather productive, making a good snap bean, but the color is not in its favor for a cooking bean.

**NEWINGTON.**—This is an early bean, but too dwarf in its habit to please us.

**HORTICULTURAL BEAN.**—This is among the most valuable of the early beans for snaps or for other uses.

**CHINA RED EYE BEAN.**—This is the best bean for snaps and general use in our list of early garden beans. It is not quite as early as the dun colored. It is now harvested, August 20th. It holds a high position among gardeners and should have a place in every garden. The seed had of the Department was nearly two weeks ahead of that had of Mr. Periam, of Hope, Cook co., and the plant did not produce as abundantly, or so large specimens. The difference must be due to difference of soil and climate where grown.

**NAVY BEAN.**—Those planted May 10th are now nearly ready to harvest and will produce a good crop, but the late planted have yielded to the drouth



## Poetry.

### Corn on the Prairies.

DEDICATED TO MRS. MICHAEL L. SULLIVANT, THE LADY  
OF BROADLANDS.

The arching sky is wide and high,  
The sea is deep and grand :  
But fair to eye as sea or sky,  
Is open prairie land.

Above behold? in blue and gold,  
The wealth of heaven is stored ;  
Within the deep the jewels sleep  
Of ocean's treasured hoard.

But on the plain a wealth of grain  
Above them all is worth :  
The richer spoil of prairie soil—  
The firmament of earth,

The sea bird white stoops in his flight,  
Amid the clouds of snow :  
He thinks he sees the western breeze  
Heave ocean waves below.

Those ocean waves are em'rald leaves,  
Moved by the breathing west :  
And silken sprays of rainbow rays  
Are flashing on each crest.

The sacks of green in satin sheen,  
Their pearly treasure hold ;  
And now, again each glistening grain  
Is turning into gold.

Hath ever sun since time begun  
Such wild abundance met ?  
In boundless corn he rose at morn—  
In boundless corn will set.

The mirage now its misty show  
Is forming in the air ;  
Against the skies great cities rise,  
Mid fields as gardens fair.

More plain and near they now appear,  
Distinctly seen the whole ;  
A paradise delights the eyes—  
A wonder fills the soul !

The fairest dream did ever beam  
Upon the prophet's sight ;  
The golden show that rose to glow  
Amid the miser's night :

The brightest hope did ever ope  
The poet's eye of trance,  
Are here beheld—are here excelled  
In one bewildering glance !

In barren sands the spell disbands

That mocks the Arab's pain ;  
In clouds and fears, too, disappears  
The mirage of the main.

And this to-day must pass away,  
But not its promise true ;  
It all shall be a-verity

Beneath these skies of blue. W. J. F.

—Mr. Sullivant was formerly a farmer on the Sciota, near Columbus, Ohio, where he took his first lessons in corn culture. As that is called the best corn land in Ohio, it may be supposed he knows how to grow corn.

We were at his house in May last, when he was busy in planting eighteen hundred acres of his favorite cereal. The field is nearly square. Now suppose Mrs. S. should wish a drive after tea, and her farmer husband be pleased to show her around the corn patch, we fear she would find it rather late on her return, as the drive would be seven miles, in addition to the two miles going and returning from the field—at two and a half miles an hour, a good walking rate, it would take nearly four hours—ample time to feast the eye on one little patch of corn. Should she choose to return through the pasture lot of thirteen thousand acres to take a look at the four thousand head of cattle, and five thousand government horses, by way of variety, she would need a canteen of water and an extra ration, To go around the farm will require a trip of over thirty miles. A pretty good day's drive on a well trodden road.

ED. ILL. FARMER.

### Stacking Hay.

A large percentage of the hay that is stacked is lost from the want of a little attention. The best thing that we have found to put on the stacks to shed off the rain and to keep the top from blowing off, is to cut up a quantity of corn so soon as it will do and put it on the stacks. The corn stalks will cure nicely, and the corn will be in fine order when the hay is needed. Sometimes we husk the corn and feed it at the time, and use the fodder only to put on the stacks, but it is better to leave the corn on, as its weight assists to hold the stalks in place. A few hours work will often save dollars worth of hay.

We can safely put down the waste of hay by rains and wind at one sixth, and in such seasons as the last at one fourth. We lost an entire stack of German millet, worth twenty-five dollars, last year by not attending to it in season.

Farmers need more barns, and we are glad to see increased attention being paid to the subject. As hay increases in value barns will spring up to protect it. When labor was cheap and prairie hay abundant, it was of little account if a share of it was lost, but now when it is worth five to six dollars a ton even a small percentage of loss is felt.

Agriculture.

True Cause of the Potatoe Rot.

After so much has been said and written, and so many theories started, (only to be again exploded by stubborn facts,) as to the mysterious potatoe diseases, it has at length become the good fortune of certain pains-taking, patient German Botanists, to discover that the true and only cause of the disease is the presence of a parasite fungus on the leaf. Dr. De Bary, Kuhn, and others, have learned by the closest attention to the potatoe plant, that there are no diseased potatoes where this fungus does not first attach and destroy the leaves; and, also, that this parasite, when located there, is very rapidly developed if the weather is warm and showery; then the fungus not only spreads and matures, but its spores are washed down into the tuber, always infecting those first which lie near the surface of the hill, and in the end, if the warm, wet weather continues, the others are also diseased.

Prof. Johnson, of Yale College, in a letter to the *Country Gentleman*, fully indorses this fungus theory, as promulgated by the German botanists. He says:—"Beyond all reasonable doubt, it is proved that the potatoe never rots without the fungus, and that it always rots with it. Planting the fungus on a sound potatoe, develops the disease. Shielding the potatoe from the fungus prevents the disease. The rot starts where the fungus begins to grow. Each microscopic cell of the tuber becomes discolored and rotten, when, and only when, the fungus issues its branches into it, or into its immediate neighborhood. Constitution, tuber, propagation, aphides, salt, manures, have nothing to do with the disease, except as they favor or destroy the fungus."

Again—"These investigators have not merely looked at the blighted leaves and seen the fungus there, but have watched the fungus, as it rapidly sends out its branches into the still healthy portions of the leaf, which it literally devours—appropriating the juices to its own nourishment, and leaving behind a disorganized and decayed mass, as the track of its desolation. It is easy to see with the naked eye that the fungus travels over the potatoe leaf before the blight. If the observer carefully regards one of the brown, bright spots, when the disease is spreading, he will see that its borders are extending over the still green leaf, in a forest of tiny mold plants, which cover the leaf with a greenish down. This is the true potatoe fungus, the *Personopora infestans*, as it is now botanically designated."

To avoid the potatoe disease, it is advised that a piece of ground be selected for growing sound seed potatoes, and no seed should be planted that has ever been mixed with diseased potatoes. If fungus appears on the leaves, they must be immediately removed, so that the zoospores cannot be washed down to the tubers in the hills. By all means, farmers should plant early, so as to have the potatoe ripen, if possible, before the warm September rains aid in ripening and developing the fungus. By being careful to plant only the healthiest tubers, and on land where no diseased potatoes have been grown, it is supposed that the

potatoe fungus, like the smut in wheat, may be soon run out.—*Rural New Yorker*.

Illinois County Fairs.

Vermilion.....	Catlin.....	Sept.	1— 4
McLean.....	Bloomington, "	"	7—11
LaSalla.....	Ottawa....	"	8—11
DeKalb.....	DeKalb....	"	15—17
Carroll.....	Mt. Carroll. "	"	17—19
Kankakee.....	Kankakee . "	"	16—18
Stark.....	Toulon....	"	22—24
Whiteside.....	Sterling.. "	"	22—25
Ogle.....	Oregon....	"	22—24
Hancock.....	Carthage.. "	"	22—25
Mercer.....	Millersburg. "	"	22—24
Madison.....	Edwardsville, Oct.	6— 9	
McHenry.....	Woodstock. "	7— 9	
Tazewell.....	Tremont... "	7— 9	
Lee.....	Dixon..... "	14—16	
Kane.....	Ganewa.....		
Winnebago.....	Rockford.....		
Douglas.....	Tuscola.....		
Marion.....	Salem.....		

Stacking and Drying Beans.

A correspondent of the *Rural New Yorker* gives the following:

I use two stakes instead of one, seven or eight feet long, and from one and a half to two inches through. Set them in the ground about two feet apart; put a withe on the stakes about a foot or eighteen inches from the ground; take a small handful of beans and lay the roots between the stakes a foot or eighteen inches from the ground; take a small handful of beans and lay the roots between the stakes, so far through that the tops will not reach the ground; take a small handful of beans and lay the roots between the stakes, so far through that the tops will not reach the ground; then a bunch on the other side in the same way. After this, the roots only should come between the stakes, and the roots of each bunch should be laid at right angles with those of the bunch preceding. When within a foot of the top of the stakes, put on another withe, drawing the stakes together to hug the roots closely, then fill up with beans, as before, to the top; then take two bunches of beans and tie the roots together astride the top, and it is finished.

Beans stacked in this way will never mould, as they often will when stacked around one stake. They should be stacked as soon as pulled, and always handled by the roots. When the stacks are thoroughly dry, they may be taken to the ground whole, pulling the stakes from the ground.

We cut the above from the *Country Gentleman*. The plan is a very good one, especially in a wet season, as the beans are thus kept from the ground.

The plan that we have pursued for years, and has given us good satisfaction, is to use only one stake about five feet long, driven in the ground at least a foot; around this we place the pulled beans with the roots towards the stake, placing them in a circle, the inside of which is not less than two

feet in diameter. As we build up this circle we put the roots nearer the stake at each round, so that when we reach the top the roots lean together, when a small lot of beans are laid on the top, completing the work. The hollow space in the center prevents moulding, and our beans always come out in fair order. A dozen or fifteen stakes is sufficient for an acre.

It is not safe to store beans in cotton sacks soon after threshing, but they should be put in open bins, boxes, or spread out on some airy loft until thoroughly cured; after that they can be barrelled and will keep in almost any condition. Ed.

### Yield of Grain in England.

The Mark Lane Express gives a table comprising the average yield per acre wheat, barley, oats, beans and peas, for thirty-eight counties in England, prepared from returns received from correspondents of that paper.

The average of the cereal grains mentioned is as follows:

WHEAT—29 bushels.

BARLEY—37½ bushels.

OATS—46½ bushels.

The lowest average of wheat in any county returned, is 22½ bushels per acre in Devonshire, and the highest 34½ bushels in Lancashire.

The lowest average of barley is 29 bushels per acre, in Shrophshire, and the highest 44 bushels in Northampton. The lowest average is 32½ bushels, in Westmoreland, and the highest 59½, in Cambridgeshire.

The beans mentioned, are a kind not much cultivated in this country. The average yield is 32½ bushels per acre. The average yield of peas is 30 bushels per acre.

### Good Suggestion in Regard to the Osier Willow.

Mr. Breed, late editor of the New Hampshire Journal of Agriculture, who is considerably engaged in the cultivation of the osier or basket willow, suggested in a conversation we lately had with him, that every farmer should have a patch of willows. He said he used them for binding grain, for binding corn or cornstalks in shock, and as withes for fence stakes, for all which purposes he found them better than anything else. The suggestion is well worthy of attention. A small patch of willows, which may in many cases occupy land that would not be valuable for other purposes, would furnish all the bands and withes a farmer would want, and with vastly less trouble than they could otherwise be obtained.—*Boston Cultivator*.

MELONS AND SQUASHES have been swept off to a great extent by the striped bug. Give them plenty of plaster next season and you will have a better stand. Some of our nutmegs are half grown, having been started in a hot bed in pots. Nothing like hot beds to start melons, so acceptable in August.

## Horticulture.

### Carelessness in Nurserymen.

Last spring we ordered a lot of choice roses from a large and popular establishment, and among them Presnises des Charpennes, Countess Marinois, Blanche Lafitte, Duchess de Thuringer and Washington. When they came into bloom they all proved to be the first named. Other lots contained errors, though all of them containing some true to name.

Had we sold these, not only our own reputation, but that of the nursery in question would have been at stake.

We have never purchased a lot of roses without finding many of them incorrect. This is due to the carelessness of the propagator, and it is time these useful individuals should exercise a little more care. We would not knowingly keep such a man an hour in our employ, in fact they are not what they pretend to be, green-house propagators, but wheelbarrow men, graduated from some market garden.

### Illinois State Horticultural Society.

*To the Horticulturists of the Northwest:*

The second annual fair of the Illinois Horticultural Society will be held on the grounds of the Winnebago County Agricultural Society, at Rockford, on Tuesday, Wednesday, Thursday and Friday, Sept. 8th to 11th, 1863.

There is every reason to believe that with a slight effort on the part of its friends, this fair will be a decided success. The present year has been one of the most favorable for the fruit-grower thus far, and the fruits exhibited promise to be abundant and excellent. The well earned reputation of the florists of Rockford, ensures a full and brilliant display of garden and greenhouse plants from that locality alone; and this will doubtless be augmented by the emulating skill of neighboring horticulturists. The more homely, but equally important, department of vegetables will, it is hoped and believed be well filled.

The exhibition will be held on the beautiful grounds of the Winnebago County Agricultural Society, in three large halls, which will be decorated in a fitting manner, under the direction of the Rockford Horticultural Society. The season of the year selected is one which will best bring out the various products of Northern, Central, and Southern Illinois, in one comprehensive exhibition, which, in its varied department of the same fruits, &c., from different latitudes, will furnish

an admirable study for the pomologist as well as an as attractive display to the lover of the beautiful.

The usual facilities in the way of half-price tickets and reduced rate of expressage will be granted by most of the railroads.

It has been the boast of the fraternity, that amid the distracting and absorbing events of the rebellion, horticulturists have retained beyond other classes an interest in their wonted pursuits; and have practiced their usual arts of peace on the very verge of civil war. The fact itself is an eloquent eulogy upon the delights of horticulture; and furnishes at once a reason and expectation that they will come out in their annual festival, in the golden days of autumn. The season of the year, the scenery of the rock river valley, will be alike propitious for gala days of social intercourse and mutual instruction, among the doctors and disciples of horticulture.

Evening discussions will be held in the city and an address is expected from Dr. John A. Warder, of Cincinnati.

W. C. FLAGG,

Corresponding Secretary.

ALTON, ILL., August 1st, 1863.

### Alton Horticultural Society.

The Alton Horticultural Society held one of its meetings, July 11th, for the purpose of discussing early fruits, which, at that time, had just begun to reach the market. It is interesting to know the season at which fruits ripen as well as their respective values.

W. T. Miller, Chairman of Fruit Committee, made the following report of fruits—on the table—brought in by members:

Dr. B. F. Long—Red Astrachan, Early Harvest, Red June, White June, Madeline Pear.

W. C. Flagg—Early Harvest, Red June, Kirkbridge White, Early Strawberry, Shine-qua-non, Large Early Bough.

A. Starr—Red June, Summer Rose, Hemskirke, Apricott.

J. Huggins—Sops of Wine, Sweet June.

E. Pennock—Hocking.

A. S. Redfield—Early Harvest, Red June, Red Astrachan.

Geo. Booth—Keswick Codlin, Cherry Currant, Lawton Blackberry, and two monstrous Onions, 2 years old, grown from sets.

Geo. Barry—Lawton Blackberry, Purple and Early Golden Apricots, Madeline and Doyenne'd d'Ete Pears.

The display was very fine. Some of the specimens were hard to beat.

The discussion was opened by taking up the Early Harvest as first on the list.

Mr. Flagg—Considers it the best early apple—has picked them on the 26th of June—thinks it is more liable to sun scald than other varieties, best

remedy for it is low heads. There is danger of injuring the trees by pickers standing on the limbs with thick boots—better use ladders as much as possible.

Dr. Long—What kind of a ladder do you generally use?

Mr. Flagg—A modification of one described in Thomas' Fruit Book—sides joined at the top, and spreading at the bottom, the shape of an inverted V. Last year I picked Early Harvest on the 8th of July; Red June the 12th; Early Strawberry the 17th; Shine-qua-non the 18th; Kirkbridge White the 24th.

Mr. Huggins—Thinks the Early Harvest more valuable than any other early variety; is not a No. 1 bearer; is full every other year; uses a common step ladder in picking. Mine are very scabby this year; do not think the trees more liable to scald than others; they are not as healthy as some varieties; better budded high than root grafted.

Mr. Redfield—They form bad heads naturally; they can, however, be remedied by judicious pruning.

Mr. Starr—Bears every other year with me; have only one large tree. Have about 20 planted six years. will not get more than a bushel from the whole of them.

Mr. Huggins—My young trees, planted five years are full.

Dr. Long—Is No. 1 for profit—better pick in different seasons, say from 26th of June to 10th of July.

Mr. Redfield—There is an apple cultivated in Missouri called Yellow June—not quite as large as Early Harvest, which is ripe and gone as soon as they commence.

Mr. Flagg—Finds them healthier and to bear better in the shade of other trees.

#### RED JUNE.

Mr. Huggins—Bears very early with me; have trees planted three years, that are full. Trees very healthy—fruit has been very scabby for two or three years.

Mr. Miller—Thinks high cultivation will obviate the difficulty.

Dr. Long—I am trying a series of experiments this year; think keeping the branches well thinned will help the matter.

Mr. Huggins—I always find the trees more liable to be troubled with the borer, than other varieties.

Mr. Miller—Would plant his trees forty feet apart.

Mr. Huggins—My first orchard was set out 32 feet apart. Plant closer every year.

Dr. Long—I plant thirty-three feet apart; think it just right.

Mr. Starr—Does not plant his trees over twenty five feet.

Dr. Long—Thinks Red June best for family use—have made more from Junes than from Harvests—though they have been poor for the last two or three years.

#### WHITE JUNE.

Mr. Flagg—I object to the name; it is not found in any of the fruit books—think it is the same as Kirkbridge White, of Downing. It is one of the most profitable apples with me—think the quality much better than the Red June. The trees are

very healthy—they are the best of twelve varieties set out in 1822.

Dr. Long—I think it superior to Red June in quality—harder than any other variety.

Mr. Miller—Thinks early apples should be picked three or four days before shipping, that they may color up.

Dr. Long—I have kept the Red Junes until September, by keeping them cool and in a dark place.

It was getting late, and several of the members having important business on hand, the other varieties were passed over with a few remarks.

#### RED ASTRACHAN.

Mr. Starr—My Red Astrachans will not be ripe for ten days.

Those on the table were perfectly ripe.

#### DETERDING'S EARLY.

Mr. Flagg—Have compared them with the Red Astrachan—am satisfied they are not the same. The stem and apple is larger than the Red Astrachan, and not as high colored; do not think there is much difference in the time of ripening.

Mr. Huggins—Are they not near enough alike to be cousins?

Mr. Flagg—From what I can learn, I think the apple originally came from Georgia.

Dr. Long—I have compared the trees and find a marked difference.

It seemed to be the opinion of the members generally, that they were two distinct varieties.

#### EARLY STRAWBERRY.

Mr. Flagg—I believe it to be one of the most profitable.

Mr. Huggins—Mr. Hilliard, of Brighton, says it is not as profitable as the Early Harves or Red Astrachan.

#### SINA-QUA-NON.

Mr. Flagg—Color objectionable; one of the most profitable varieties.

On motion adjourned to meet on the first Saturday in August. Subject for discussion—"Early varieties of Peaches."

GEORGE BARRY,  
Secretary.

### The Pear Blight.

EDS. RURAL NEW YORKER:—In your issue of the 11th of July, I find a partial description of an elaborate paper read before the Illinois Natural History Society by its President, B. D. Walsh, Esq., with some extracts therefrom, designed to show that certain insects therein described, cause what we call the pear blight. Will you please permit a humble individual to present through the *Rural New Yorker*, a very different theory, with the reasons for it, together with a complete remedy.

The cause of pear blight is the heat of the sun's rays upon the trunk and branches of the tree, thickening or coagulating the albumen of the sap in its descent in the bark, thereby obstructing or clogging the circulation of the sap, leaving it to

putrify. If the tree be young, with the outside bark tender, the first sign of injury that appears is the shrinking of the bark and adhering closely to the wood, which may be easily seen by examining the trunk of the tree. These shrunk spots of bark which appear, from the size of a silver half-dollar to that of a fifty-cent shinplaster, and such spots on the lower part of the large branches, generally enclosing a small twig, which will be found dead, require an operation to be performed in the following manner:

Take a sharp knife and seave off the outside bark, which will be found black as ink, until you come to a light color, but it is not necessary to remove every vestige of the black. Then with the knife slit the bark perpendicularly from a little above to a little below the shrunk spots. If the trunk or branch be large several slits may be made. A little soft soap rubbed on after the operation is useful.

I have never seen a branch of a pear tree with its leaves turn black with the blight, unless upon examination of the trunk or large branches I found the outside bark rotten to a considerable extent, from which the putrid sap was probably taken up and thrown into circulation before a permanent separation between the living and the dead is established. And after finding such rotten spots of black and shaving off the black portions and slitting as before directed, I have never failed of effecting a cure.

When the bark is found dried hard, and forming an unyielding band around, or partly around the tree, by simply slitting it and softening with soft soap, if life be not entirely gone, it will recover. And when by an effort of nature the tree recovers itself, the bark will invariably be found cracked, as if a wedge were thrust through the wood and bark, thus showing what is needed to relieve it. It is very rare, if ever, that we find a pear tree that does not bear upon its body unmistakable signs of such spontaneous recovery.

After applying the preceding remedy and the tree recovers, bear in mind that it is liable to a new attack, therefore it should be thoroughly examined several times during the season, for eternal vigilance is the price of healthy pear trees.

Now, Messrs. Editors, in conclusion, allow me to remark, that if others find my remedy as effectual as I have found it, for the pear blight, then it follows that whatever other mischief the insects before referred to may do the pear tree, they do not cause the blight, for this remedy in no way interferes with them or their doings, but the tree recovers in spite of the bugs.

As long ago as the commencement of the Mexican war, the writer of this caused to be published in the *Rochester Daily Advertiser & Republican* an account of his successful experiments in arresting the fire-blight, as we then called it, in the pear tree, recommending precisely the same remedy as now, but it was not heeded, probably because it was not read before a literary association.

Henrietta, July 24, 1863.

E. MAY.

Thus it will be seen that doctors disagree. Our own opinion has been stated on former occasions, and is supported by that of Mr. May. We shall give his remedy a trial on the first occasion, but thus far this season, there is no sign of the pear blight in our grounds.

Ed.



### A Needed Reform.

J. W. Brown, the eloquent lecturer on temperance and sin, editor of the Wisconsin *Chief* planted him an acre of strawberries, but his first crop came to grief, as will be seen below. It is time that such practices had an end; but as we have the same class of persons in this latitude, we have concluded to allow Bro. Brown's lecture to go on the record. We have no complaints to make of this class ourself, for we have been on his platform some years, and allow of no running over our beds, or through any part of our grounds. as though they were gotten up to be ruined in that way. We have no less, but rather more friends since we adopted the rule, and certainly better crops of berries.

There is a very good rule though an old one, that what is worth having is worth asking for. To this asking class we have an open hand, but to the class so graphically described by Bro. Brown, we have it closely closed, and only open at so much per quart or bushel outside of the garden. Ed.

It was Gen. Scott, I believe, who once discharged a "hasty plate of soup." A higher liver than the General, we have just discharged three pieces of strawberry shortcake. For several weeks this has been our "base of operations." From this point we propose to make a flank movement upon the inkstand, and let drive a fifteen-inch shell at—random.

Four years ago—"if memory serves us"—we turned under two acres of stubble, and dropped the first rootlet into the soil. We had no means and little health; but faith and an iron will. Friends pitied us, and enemies laughed at and reviled us. A friend in town, largely investing in cat-tail flag, water-snakes and muskrat holes, made merry about "Brown's ornamental farming." The indifferent called us a "fool" for meddling with what we knew nothing about. Among other varieties of small fruits, we ventured upon a "strawberry patch," dreaming only of growing sufficient for our own family use.

Well, four years have returned, and with them, a greater reward than we dared hope for. Two years ago, our acre of Wilson's presented the largest and finest fruit ever raised in Wisconsin, challenging belief. The "strawberry excitement," was intense. It pervaded all classes. Our grounds became the great center of attraction, and crowds of self-sacrificing pilgrims journeyed to behold and wonder. The highway in front of our humble dwelling was thronged with teams.

Ah, the transforming power of a strawberry patch! The most indifferent became enthusiastic in their regard. Old enemies, with some vile calumny freshly reeking on their lips, came through our gate as smiling friends. Ladies and gents who never were under our roof, were on terms of the closest intimacy. What was a little singular, however, the "patch," had no effect on real friends. They came as usual, as they ever come, visiting us in our sadness and our joy; rejoicing with us in the light, and mourning with us in the shadows.

Alas! that a triumph so marked and a popularity so wide-spread should have a per contra. Some of our new friends came again and again to "see Brown's strawberry patch." The army of visitors were not content to sit and eat where the ground was crimson with ripened fruit of fabulous dimensions. They must examine the matter thoroughly, and so, back and forth, across and return; at right-angles; oblique, zigzag, katering and spulgrways, they marched singly and by scores, tramping vines and fruit remorsefully into the ground, and the ground itself into a brick-like hardness. We have seen men afflicted hopelessly with that old and terrible disease called laziness, suddenly galvanized into new life, at sight of a very large berry, and leap upon it like famished wolves. We have seen modest, slender-built, delicate females usually walking as if on eggs, suddenly become possessed of legs—as we verily believe and affirm—and at one bold step, stretch over ———. Let us be dumb, for the rows were three feet apart, and our veracity shall not be ruined by giving the number stepped over. We have seen those who would not spare a dime to save us from starvation, eat until they were in pain, look wishfully over the patch, tear up both hands full of fruit stools, and go sadly away. We have seen—but further of such matters, this deponent saith not. But when people now charge Brown with being a "hog," let the memories of that strawberry season; the heavy amounts of berries assessed, and the silent, meek endurance under a thousand trials, be our only vindication. If we have not suffered a full penalty for our success in raising small fruits, God help us; for our punishment will be greater than we can bear.

For the honor of man and womanhood, let us keep silence of the many revelations of poor human nature. Enough to say that, both as a matter of "military necessity," as well as of deliverance from the most annoying vexations, we have been compelled to change our "base" and offend many people.

Now let us inquire: Why are fruits outlawed from the common rule which applies to other property? Why should we be assessed so severely by from one to five hundred people, when the farmer, the merchant, or the mechanic is not? Why teach children that taking one kind of property, is theft, and to take fruit all right and proper? Why not a hundred people levy on a neighbor's wheat or garden sauce, or the groceries of a merchant, as well as upon the fruit? Is there a farmer, merchant or mechanic, who will do business for the sake of giving his profits to those who are not in the same business? If the farmer should not raise grain, or the merchant bring in sugars and tea, for gratuitous distribution, why should the pomologist raise fruit? Why should labor and means, and the investment of capital in other avocations be sacredly respected as private property, and not in the raising of fruit? And should fifty or a hundred children whose parents do not raise wheat, visit a farmer and ask for wheat, and tread over his grounds, and be refused after one year's trial, would such parents denounce such a farmer a hog? Would such parents send their children to our stores to importune for one or two shilling's worth of sugar each, or denounce the merchant if he refused them? Is there reason, justice, or decency, in asking one man to give away the proceeds of a season's toils, because it is in fruit? Can any one

we have offended by refusing to allow them to tramp over our grounds give a reason why we should toil through the season that they may riot upon the results? "What's a few berries? Sure enough—a little matter, as would be a pound of sugar at the merchant's. But should crowds of men, women and children flock to the store through five or six weeks, and each claim a pound, the merchant would find a sad hole in his profits. And should he throw himself upon the generosity of a great mass of people, he would find that they would accept his gifts and impoverish a whole sugar plantation with the most remarkable *sang froid*.

Finally: We have done with this wholesale system of robbery. Our friends who know us and understand this matter, will be friends always. Those who *visit us only in berry time*, will probably continue offended, and to revile. Let the Lord's will be done.

### Wilson's Strawberry--Two Witnesses.

The editor of the *Germantown Telegraph*, speaking of this famous strawberry, says "the Wilson ran out the second year, whereupon we ran it off the premises totally, never to come back again. If anybody were to surreptitiously infest our ground with a bed of this so-called fruit, he would be incontinently prosecuted if discovered!" The editor of the *Gardener's Monthly*, also residing in Germantown, places the Wilson at the head of several select varieties for family use, as well as for productiveness.

When two distinguished men thus differ in the same locality, on a variety many years in general cultivation, we are admonished to be cautious in recommending any new sort to others.—*Country Gentleman*.

### The Two Gardeners.

There were two gardeners whose crop of peas had been killed by the frost. One of them fretted and grumbled, and said nobody was so unfortunate as he was. Visiting his neighbor some time after, he cried out in astonishment, "What are these? A fine crop of peas! Where did they come from?" "These are what I sowed while you were fretting," said the neighbor. "Why, don't you ever fret?" "Yes, but I generally put it off till I have repaired the the mischief." "But then you have no need to fret at all," said the fretter. "Precisely so," replied his friend, "and that is the very reason why I put it off."

### Rot in Grapes.

There are three distinct diseases of the grape; sometimes all three are developed in the same vineyard, and sometimes two, or only one. The *rot*, properly speaking, is a disease and discoloration of the entire juice of the berry, from which it assumes a dark brown color, soon drops off the stem, or dries on and falls upon the first shaking of the vine. This is called *water rot*.

Another disease is *mildew* which appears on the stems of the grape bunches and on the leaves. Mildew renders the leaves and stems unhealthy, and consequently unable to convey a healthful vital

sap to the fruit, retarding its growth, and finally preventing it from ripening.

*Small pox* is another disease, affecting only the berry of the grape. This is a spot of rust on the cheek of the berry, so very thin that the keenest blade cannot shave it off without exposing the healthy flesh of the berry underneath. The effect of small pox is to cause a slight depression on the surface of the grape where the spot is attached, but does not seem to be of any other damage to the fruit, as the grape is as good for wine, as if it had not been blotched; except the slight loss of fuliness in form. We are told that this disease is of more serious consequence in the old country.

#### WHAT CAUSES THE ROT?

As we were examining a vineyard back of Sandusky—the only one seriously affected by water rot, we came upon a German vine dresser at his work, and asked what caused the rot. "The land is too rich," was his prompt reply. "Is it not the effect of such hot, muggy weather as this?" "No, the land is too rich; such days as this bring out the rot faster than cool, dry weather, but it is only because it stimulates the rich soil in which the grapes are growing. I have been in a vineyard all my life, my father has a large vineyard in Germany, which he inherited from his father; so I know something about Grapes. The land in this vineyard is too rich, and that is why the grapes rot."

This vineyard is in dark muck and loam, with a clay bottom at the depth of twelve to eighteen inches, and is the most neatly kept vineyard about Sandusky.—*Ohio Farmer*.

### Cultivating Orchards.

On a very pleasant day in October of last year, we took a long ramble with that great lover of trees and excellent practical horticulturist, Thomas Meehan, of Germantown, Pa. We walked far up the beautiful Wishahickon, over the hills and through the fields, and talked of what we saw. Among other things we came to an old orchard, and he fell to discoursing about what is sometimes recommended in the papers about the clean cultivation of orchards, much in the vein of the following, which we find from his pen in a late number of the *Gardner's Monthly*:—*Ohio Farmer*.

#### ORCHARDS.

We must repeat, that we regard the plan of not allowing even the merest blade of vegetation to grow in an orchard from the time it is set out until it is old enough to cut up for fire-wood, as nothing but a "sentiment." We have never seen such an orchard, and if any one can tell us of such an one, we will go and see it. It would not "pay," and we now point out why. The reasons are obvious, and all this—granting for the sake of argument, that the trees might be a little better for it.

1. To make an orchard profitable something must and will be grown on the ground during the first few years of its existence, at the very least. Suppose we admit cropping an injury, grass crops are least so of any. We do not, however, consider it an injury, unless suffered to mature or under other limited circumstances.

2. It makes all the difference *how a thing is done*. An auctioneer was selling a lot of German sausages,

of very uncertain age, and got but one bid. "Only fifty cents a barrel," said the crier, "why they are worth more than that formure." A city ruralizer took up the idea. He had just bought a farm in the country, and he sent out his ten barrels of sausages, with direction to Peter to drop one in with each hill of corn; which was done accordingly.

The next week formed an awful week in that county. The inhabitants thought all the plagues of Egypt were to be repeated on them. Dogs by the thousands were running here and running there each with an ancient and odorous sausage:—and if the mysterious hints we sometimes have of the unexplained scarcity of dogs about sausage time, have any weight at all, certainly the dogs now had a full revenge. But the city farmer—he voted sausage manure a humbug of the purest water; and to this day nothing but the strongest barn-yard fertilizer will go down with him.

The fact is, the best of principles are fraught with danger in ignorant hands; and we can point to scores of instances where orchards are "ruined by grass;" and we know many "good orchards under cultivation," in good hands. Instead of principles we had better give you an example for practice:

If your land has a tenacious subsoil, under-drain it; then manure with whatever fertilizer you may decide on as best adapted to your soil and circumstances. Plow deep, then set your trees 25 feet apart, and sow at once with grass seed and *white clover*. The object now should be to get a *tough sod*. This is obtained by mowing often—say three times during the season around the trees, and twice at least over other parts of the ground—leaving the grass to lie where it falls. In some cases, perhaps, the grass may injure a particular tree; that tree may have weak roots, or the grass roots may get extra strong, and run the tree too severely for moisture. In such cases pull the grass out. Common sense will do more for you than the best rules. This is the art of gardening, to apply knowledge to varied and varying circumstances. Perhaps in that case, mulching—usually a questionable practice—may help it: just as a mustard plaster, not a comfortable application usually, may at times be excellent for a pain in the back. The second year you may cut your crop of grass—never allowing it to get too old; in fact, make a rule to take two crops a year—immediately under the trees three times if you wish, and let it rot where it falls. When your trees or grass are likely to fail, top-dress: in many cases perhaps annually. Should any one tree, at any time, not seem to grow as well as you would wish under this treatment, haul a load of old vegetable muck, and spread, say two inches deep under the tree, and you will find all as well as you can wish.

—In regard to sowing grass seed in a newly set orchard, we object to it in toto. We will not say that the practice is a bad one in Pennsylvania, but on the prairie we know it to be so, by pretty dear experience. During the first few years of the orchard, we would plant it to beans, potatoes or corn, or vines; give it good culture, and if need be manure. After this it may be seeded with clover and Herd's grass, in whole or in part. The

system adopted by Mr. Clark Chatton of seeding a strip of the width of the tops of the trees is a good one. This is mown once or twice, and used for a mulch, while the entire strip is plowed and sown to buckwheat which is allowed to fall on the ground. Nothing is taken from the soil except the fruit after the orchard comes into bearing. Dr. Pennington sows buckwheat in his orchard, and sometimes harvests a portion of it. Where a person has an orchard of two or three acres and plenty of manure, the entire strip could be cropped in beans or vines to good advantage.

In our soil the roots of trees run deep, generally below the plow, and of course are not harmed in the culture, even if somewhat deep. At the east the tree roots generally run near the surface. In the south part of the State, new land can be plowed as easily as though the stumps had been so many posts set in with the spade. Trees are never turned out by the roots in our groves, they must be broken off if ruined in a storm. This fact may account for the difference in the value of orchard plowing between the two sections. Our orchard at Leyden, planted seventeen years since, is under culture and for several years has had a crop taken from it, but it has been occasionally manured. Last year the tenant sowed part of it to barley and planted the remainder in corn and potatoes. This year the tenant sowed ten acres of it to flax, and sold the crop on the ground for \$140, and the same orchard will turn off over six hundred bushels of apples. The trees are set twenty-eight feet apart each way, and last fall at least one third of the original trees were dug out, being dead or worthless, and new ones set in. We therefore agree with the *Gardeners' Monthly*, that making a summer fallow of the orchard is all bosh. At the same time we protest against an exclusive grass crop in the early state of its existence. Mulching and manuring might do something for it, it is very true, but at that time we prefer deep culture, to allow the roots to go down, instead of, by the use of mulch to coax them to the surface. Beans or vines are probably the best of all for a young orchard; we do not like corn as it shades the trees too much, and the first year the newly set trees will make but a feeble growth with it, as we have found on several occasions. After the trees have been set three or four years corn is less objectionable

Ed.

### Orchards from New York.

People complain that trees from New York do not make good orchards for the West. The reason is obvious, as the varieties grown in New York do not generally do well here. A Winesap, Wil-

low Twig, or Keswick Codlin grown in New York and sent out West will do well, if properly grown and shipped. That is, it must not have been forced by stimulating manures, taken up too early, or badly packed for the journey. We can point to good healthy orchards in the West from New York grown trees. The great trouble is in the varieties. Before us is a list of varieties offered for sale the coming autumn, in which the quantity is given to select from. This list, of course, is a fair index of the popularity of each sort at the points of growth, which is in one of the best fruit districts of Western New York. It will be seen that no Western orchardists could select a good orchard from it, as he would be wanting in almost all our popular sorts. If New York nurserymen wish to supply the West with apple orchards they will have to conform to Western ideas as to value of varieties, and to materially change their list. But we'll let the list speak for itself:

SUMMER.

*4,000.....	Red Astrachan.
†1,000.....	Golden Sweet.
†2,000.....	Sweet Bough.
†1,000.....	Duchess of Oldenberg
†4,000.....	Early Harvest.
†200.....	Early Joe.
200.....	Early Strawberry.

12,400

AUTUMN.

200.....	Aut. Strawberry.
†200.....	Gravenstein.
*600.....	Maiden's Blush.
*200.....	Porter.
4,000.....	Fall Pippin.
†2,000.....	Snow Apple.
†200.....	Rambo.
200.....	Primate.

7,600

WINTER.

40,000.....	Baldwin.
40,000.....	Northern Spy.
8,000.....	R. I. Greening.
8,000.....	Boston Russet.
8,000.....	Mann Apple.
4,000.....	Beauty of Kent.
*6,000.....	Golden Russet.
2,000.....	Spitzenburgh.
*4,000.....	Cooper's Market.
4,000.....	Cranberry Pippin.
2,000.....	King of Tompkins co
†8,000.....	Tolman Sweet.
†2,000.....	Twenty Ounce.
*1,000.....	Vandavire.
†1,000.....	Swaar.
†2,000.....	Yellow Bellflower.
*200.....	Belmont.
200.....	Hawley.
*400.....	Jersey Sweet.
200.....	Seek-no-further.
400.....	Calvert.
200.....	Melon.
400.....	Peek's Pleasant.
200.....	Waggoner.

142,200—Total 162,200.

Suppose that this entire nursery should be sent out West and put in orchards on the prairies, what proportion of them would be of any value? Let us run over the list and see what progress we will make.

Of those we would take what is in the list we will mark with a \*, and those that we would put one or two in an orchard of one hundred trees we will mark thus †, while of those that we would not care to plant at all will stand as they are. There are a few of our especial favorites that we will mark thus ‡. In the whole list is

7,200 very valuable.  
16,600 valuable.

23,800, total for the West, or about one-seventh part of the whole list. This is just what's the matter with Western orchards from Eastern Nurseries.

Disinfecting Agents.

Now that the warm weather is upon us, our citizens should thoroughly cleanse their premises, rendering them as pure and healthy as possible.

We are convinced that a great portion of the disease so prevalent during the hot months in summer is attributable to the accumulation of filth in alleys and yards. There are a number of disinfecting agents which will be found efficient in removing offensive smells from damp, mouldy cellars, yards, pools of stagnant water, decaying vegetable matter, &c. Either of the following will answer the purpose, while they cost but a trifle:—

1. One pint of the liquor of chloride of zinc, in one pailful of water, and one pound of the chloride of lime in another pailful of water. This is perhaps the most effective of anything that can be used, and when thrown upon decayed vegetable matter of any description, will effectually destroy all offensive odors.
2. Three or four pounds of sulphate of iron, (copperas) dissolved in a pailful of water, will, in many cases, be sufficient to remove all offensive odors.
3. Chloride of lime is better to scatter about damp places in yards, in damp cellars, and upon heaps of filth.—*Scien. Amer.*

How to Make Cider Vinegar.

A correspondent wishes to know the most expeditious way of making vinegar out of cider. Probably as good a course as he can adopt is to keep the cider in a pretty warm temperature—as near summer heat as practicable—and to allow the air to have access to it. The usual practice is to leave the bung of the cask out, and place a bottle, neck downward, over the bung-hole. The use of the bottle is to turn the rays of light on the liquor, which promotes decomposition. There are ways by which cider can be changed into vinegar more rapidly, but unless the business is to be followed on a large scale, it may not be an object to adopt the process; the cider is made to flow through troughs in a thin sheet, in order to expose it as much as possible to the air. Shavings



of oak wood are sometimes placed in the troughs, to render the action of the air more direct on the liquor. By having several of these troughs, or a long length in the aggregate, cider may be converted into vinegar by once running through.—*Boston Cultivator.*

## Salmagundi.

**SWEET APPLES FOR CIDER.**—I have a large lot of sweet apples in my orchard, but they will not sell in market; what shall I do with them? H.

—Mix them with your cider apples at the rate of one-fourth to three-fourths sour apples, and you will have a richer and better cider.

The sweet apple sent us is not Golden Sweet, but similar in appearance to it and ripens a month later, it is called by some Late Golden Sweet. The State Horticulturist Society has not recognized it for the true name. It is a valuable sweet apple. The tree has an upright, symmetrical head, while the Golden Sweet has a spreading head. You will thus see a decided difference in the growth of the two. The latter is the most productive. We have them in the nursery with a dozen or more large apples each.

**STATE GEOLOGIST.**—Can you tell me what has become of the State Geologist? PETER.

—He is at Springfield, drawing his pay as regular as the months come and go, and hard at work arranging his reports and specimens, but the Legislature has not as yet seen fit to publish his report, having been more engaged in private bills on the account of members and in party tactics than in the public good. When the report shall be printed, it will be found a valuable one, as we know from having examined much of the copy.

**THE NEW SHEEP BOOK.**—What has become of Randall's promised sheep book? WOOL GROWER.

—We hear that it is to be ready in a short time. Drop a line to D. D. T. Moore, Rochester, N. Y.

**BEST TREES FOR ORCHARDS.**—I want to set out an orchard of ten acres in the fall, and would like to know what varieties are best, and the proper distance to set them.

—You will find all of these points described in previous numbers of the *FARMER*. Twenty to twenty-four feet is a good distance; at twenty feet it will require 1,900 trees for the ten acres. You should plant but a few varieties, and do not attempt to get all that are the best but a few of them. The trouble with most of our orchards is

that they have too many sorts, all ripening at different times. You should consult the market in regard to summer, fall or winter varieties. We intend to plant thirty acres to apple orchard this autumn, and shall set it all to summer fruits, as these are now most wanted, as the great majority of orchards are set of winter varieties.

**WINDFALLS FOR CIDER.**—In making cider can I use windfalls without any further preparation, or will the cider work itself clear? JOHN DUNHAM.

—Windfalls will need washing, and all rotten or worm spots cut out, otherwise the cider will be worthless. If the apples have a bad flavor it will be imparted to the cider.

**PLANTING SORGHUM IN AUTUMN.**—What do you think of planting sorghum in the fall? SYRUP.

—For the past three or four years we have noticed the best stand of sorghum and the most vigorous when it has been self sown. We would recommend the experiment of autumn planting, and have great confidence that it will succeed. The land should be plowed in narrow lands so as to give it good drainage. We have some growing of self planted that looks well.

**THE WHITE WILLOW.**—I bought a lot of willow cuttings of a reliable man last spring; most of the cuttings are dead, and those growing have a rich glossy look, different from a lot purchased by one of my neighbors. What shall I do with my fence?

—Take up the remaining plants in the fall and *bed them in*. Prepare the land anew, and in the spring reset the hedge. The plants you have are not the white willow, but probably some large sort which may be nearly as valuable as the white willow for this purpose, these can be cut back and reset a foot apart, and remaining space filled up with cuttings. We have before said that the willow is among the first trees to put forth in the spring, and the cuttings should be put in the ground as the frost is coming out. If set late they are very uncertain. We intend to set over a mile of willow fence next spring, but shall prepare the ground this fall, we would not set them last spring for the reason that the ground could not be made ready in time. We have an abiding faith in the value of the white willow for fencing, but we must have the ground ready in the fall, and also have large, well grown cuttings, none of your peddlers pipe stems. More of this in another part of the *FARMER*.

**TANZY FOR PEACH TREES.**—Will tanzy planted at the foot of peach trees keep out the borer?



—We cannot say, as yet, though we have the matter in hand, and shall be able to report in due time.

**HOP ROOT WANTED FOR YARDS.**—Can you sell me hop roots to plant an acre, if so, at what price?  
JOHN SLATER.

—We have no such an amount of roots, but they can be had of hop growers in Otsego or Montgomery counties, New York. Cornelious Lane, of Buel, Montgomery co., has a very fine yard, and could supply any amount of roots. What the price is we cannot say, but suppose not much above the value of the labor in putting them up for shipment. Mr. L. could also give directions as to the proportion of staminate plants. He is one of the oldest and most successful hop growers in the State of New York, and is thoroughly posted. Mr. Slater will do well to write him on the subject. There is no reason why we cannot grow hops in the West. The white willow will make good poles in four or five years at most.

**DEPTH OF CELLARS.**—In building a cellar how deep should it be in the ground?

—Not over two or three feet. The house should be set up at least four feet above the natural surface and filled in around by the earth from the cellar. This will tend to throw the surface water from the building and give you a dry yard, as well as to have plenty of air to keep the cellar dry, which is very important. Four feet above ground and three feet below will give you a cellar seven feet in the clear which is ample, as most of the cellars are not over six to six and a half feet.

**A HOG TAMER.**—I hear of a HOG TAMER, can you tell me anything about it? what is it like? is it of any value and its cost?

—What is called a "hog tamer," is a sort of shear punch that cuts the gristle or rooter of the hog loose, in a circle of about one and a half inches, and thus prevents his rooting. One of our neighbors had one sent him by a friend and loaned it to us on trial. We used it on about a dozen aged and adolescent porkers and it has acted like a charm, as they do not show the least propensity to root or get out of the pasture; but are given to corn and clover. We look upon it as a valuable invention. We do not see it advertised, and could not tell where it can be had or the cost. Some clever fellow might make his fortune out of it.

**LIMA BEANS.**—I planted a lot of these last spring and poled them, as a gardener told me your plan

of growing them without poles was a humbug, and that they would not fill out the fruit if left on the ground. He says that no well bred gardener would think of growing Limas without poles, as it has always been the practice; he has a poor opinion of these, what he calls newfangled notions. The poling has been a very expensive piece of work, as I have had to go over six miles to the river timber for the poles, and then had to cut down young hickories for them. I shall grow but few Limas in this way. I did not like to depart from the advice of a gardener, as he ought to be better posted than you, as he has spent the greater part of a long life in the business.

—It was, we believe, Sir William Pitt, who said that age did not always bring wisdom nor grey hairs knowledge. We have great respect for the antiquity of gardening and old gardeners, but notwithstanding all this, we sometimes excuse ourselves in departing from these time honored customs, that are not convenient to be performed and the want of poles determined us to let them *run*, and the result is a good crop of well grown Limas. At this writing, Aug. 15th, they are plump and fine, in all respects as good as any we have seen in the hands of a regular gardener. It is possible that with poles a larger yield can be had per acre than by our mode, but we will grow them at a less cost. We have an acre of which we may make further mention when we harvest the crop.

## Domestic Economy.

### Valuable Receipts.

#### A DELICATE DESSERT.

Lay half a dozen crackers in a tureen, pour on enough boiling water to cover them. In a few minutes they will be swollen to three or four times their original size. Now grate leaf sugar and a little nutmeg over them, and dip on enough sweet cream to make a nice sauce, and you will have a simple and delicious dessert that will rest lightly on the stomach—and it is easily prepared. Leave out the cream, and it is a valuable remedy for "sick room cookery."

#### BOILING POTATOES.

This is a formula: Let each of a mess be of equal size. Let the water boil before putting the potatoes in. When done, pour off the water and scatter three or four table spoonsful of salt, cover the pot with a coarse cloth, and return it to the fire for a short time. Watery potatoes are made mealy by this process. How simple is the process, yet how few understand it!

#### SIRUP FOR COOKING.

In making ginger-bread with sorghum molasses mix the soda with the molasses; then warm, stir, till light, then mix with flour in the usual way, which will make light bread.

## TO CLEAN BRITANNIA METAL.

Rub the article with a piece of flannel moistened with sweet oil; then apply a little pounded rotten stone or polishing paste with the finger, till the polish is produced; then wash the article with soap and hot water, and when dry, rub with soft wash-leather, and a little fine whiting.

## TO CLEAN PEWTER.

Scour it with fine white sand, and strong hen lye made with wooden ashes, soda, or pearlash; then rinse the pewter in clean water, and set it to drain. The best method, however, is to use the oil of tartar and sand.

## FLAXSEED SIRUP.

This excellent remedy for a cough is made thus: Boil one ounce of flaxseed in a quart of water for half an hour; strain, and add to the liquid the juice of two lemons, and a half pound of rock candy. If the cough is accompanied by weakness and a loss of appetite, add half an ounce powdered gum Arabic. Set this to simmer for half an hour, stirring it occasionally. Take a wine-glassful when the cough is troublesome.

## STEWED PEAS.

Not knowing who is responsible for the following, and it appearing that there may be something in it, we give it for what it is worth. It is claimed to be an excellent dish:

Take two quarts of green peas; put them into a stew-pan, with a quarter of a pound of butter, a bunch of parsley, and the heart of a fine lettuce, cut it in pieces, a bunch of mint, three or four lumps of sugar, some salt and pepper, and a very little water. Stir all together, set it on the coals, and let it stew gently for an hour, or an hour and a half. Having taken out the parsley, add a piece of butter, rolled in flour, and stir in the yolk of two eggs just before you send it to the table.

You may, if you choose, put in the lettuce without cutting it in pieces, tie it up with the bunch of parsley and two onions, and withdraw the whole before you dish the peas. Serve up the lettuce in another dish.—*Ger. Telegraph.*

## A BREAD AND BUTTER PUDDING.

Cover the bottom and sides of a deep dish with moderately thick slices of bread, thinly spread with butter, and then fill the dish with any kind of sweetmeats. Over this place another layer of bread and butter, and let the dish stand until thoroughly soaked with the sirup. Make a custard and pour it over the whole. Bake for about twenty minutes, and after it is cold turn it out on the dish on which it is to be served. Send to the table with a hot liquid sauce.

## GOOD WAY OF COOKING ONIONS.

It is a good plan to boil onions in milk and water; it diminishes the strong taste of that vegetable. It is an excellent way of serving up onions, to chop them after they are boiled, and put them in a stew pan, with a little milk, butter, salt and pepper, and let them stew about fifteen minutes. This gives them a fine flavor, and they can be served up very hot.

## MOLASSES BEER.

Six quarts of water, two quarts of molasses,

half a pint of yeast, two spoonfuls cream of tartar. Stir all together. Add the grated peel of a lemon, and the juice may be substituted for the cream of tartar. Bottle, after standing ten or twelve hours, with a raisin in each.

A good harvest drink may be made by mixing with five gallons of good water, half a gallon of molasses, one quart of vinegar, and two ounces of powdered ginger. This will make not only a very pleasant beverage, but one highly invigorating and healthy.—*Ger. Telegraph.*

## FOR STOPPING MORTIFICATION.

A tablespoonful of pulverized charcoal, one of honey, one of rye meal, and one of yeast, made into poultice, and applied over the place.—*Id.*

## CURE FOR ST. VITUS' DANCE.

Of black snake root, take a root about four inches long, the fibres belonging, and put into a pint of water. Drink a wine-glassful three times a day.—*Ger. Telegraph.*

## A GOOD RECIPE FOR VINEGAR.

Take forty gallons rain water, one gallon molasses, and four pounds acetic acid. It will be fit for use in a few days. Acetic acid costs twenty-five cents per pound. This is the receipt by which most of the cider vinegar is made, which is sold in the country stores.—*Scientific Artizan.*

## NEW RECIPE FOR MAKING SOAP.

We lately tried a new recipe for making soap—new at least to us—and as we have had such good success, I thought it would be well to send you the *modus operandi* for the Housekeepers' Department of your paper.

Pour four gallons of boiling water over six pounds of washing soda and three pounds of unslacked lime; stir the mixture well and let it settle until it is perfectly clear. It is better to let it stand all night, as it takes some time for the sediment to settle. When clear, drain the water off, put six pounds of fat with it, and boil for two hours, stirring it most of the time. If it does not seem thin enough, put another bucket of water on the grounds, stir and drain off, and add as is wanted to the boiling mixture. Its thickness can be tried by putting a little on a plate to cool occasionally. Stir in a handful of salt just before taking off the fire. Have a tub ready soaked to prevent the soap from sticking, pour it in and let it set till solid, when you will have from the above quantity of ingredients, about forty pounds of nice white soap, at a cost of about two cents per pound.—*German-town Telegraph.*

## Pickles, How to Make Them.

Pickles, though generally considered contraband of good digestion, are nevertheless, in universal use, and the clever housewives of the country will not take it unkindly if we give them a full batch of approved recipes. Indeed they will not, for not a few of them have requested information on this subject. Thus compelled, we of course, submit, but we want it understood that we publish two-thirds under protest.—*Ed. Wis. Farmer.*

## GREEN TOMATO PICKLES.

Half peck tomatoes, 3 onions, 2 bell peppers,

(green,) white mustard seed, salt to each layer; scald vinegar and turn over it.

#### TOMATO CATSUP,

To one gallon tomato juice add 4 tablespoonsful of salt, same of black pepper, 2 spoonful of allspice, 4 pods of red pepper, 4 tablespoonsful ground mustard, one quart vinegar; boil two hours; when cold bottle and cork tight.

#### TOMATO PICKLES.

One peck of green tomatoes sliced, one dozen sliced onions, sprinkle with salt and let them stand till next day, then drain them, 1 box mustard, half an oz. black pepper, 1 oz. whole cloves, 1 of yellow mustard seed, 1 of allspice; put into the kettle a layer of tomatoes and onions, and one of spices alternately, cover with the vinegar and boil half an hour,

#### PICKLED DAMSONS.

To 1 peck damsons allow 7 pounds brown sugar, half pint vinegar, 2 tablespoonsful ground allspice, the same of cloves, let the vinegar and sugar boil, and to the mixture add the damsons and spice. They should boil  $2\frac{1}{2}$  hours, being constantly stirred; when cold they are fit for use.

#### PICKLELILY.

Four quarts green tomatoes, 2 of peppers, 1 pound white mustard, 1 cup of salt, add vinegar, 2 quarts onions.

#### QUICK PICKLES.

Take a head of cabbage, slice it up or chop it, sprinkle salt through it; let it remain all night; chop up an onion with the cabbage, drain it thro' a colander, season it highly with pepper and celery seed, cover it with strong vinegar, and it will be fit for use the third day.

#### YELLOW PICKLES.

Half a pound of bruised black mustard, half a pound of ginger, sliced; half a pound of garlic soaked in brine one week and bleached; half pound of horseradish, soaked one week and dried; 2 oz. of turmeric, 2 oz. cayenne pepper, or 4 oz. black pepper; put in one gallon best apple vinegar, and let it remain in the sun three weeks; then put it in your pickles.

#### GREEN PICKLES.

To a jar contrining four gallons, put half tn oz. of turmeric, 3 pounds of brown sugar, 2 handsful of horse radish, 2 of garlic, and 2 of bruised mustard seed; 3 oz. broken cinnamon, 2 oz of cloves, 2 of allspice, 4 of broken ginger, 2 of black pepper; put them in as much good cider vinegar as will cver your pickles; put them on the fire, and as soon as it comes to a boil, your it on yogr pickles; add a little vinegar now and then so as to keep them covered.

#### RED PICKLES.

Divide your cabbage in quarters, sprinkle it well with salt, and pack it in a jar; let it stand 24 hours; take it out and wash off all the salt, lay it in a sifter to drain the water from it, and wipe as dry as you can; to one gallon vinegar put one quart of pokeberry juice, (which you can get by scalding the berries and squeezing them,) one pound of brown sugar, one pint of onions, 2 oz. of cinnamon, 2 oz. pepper, 3 oz. of allspice; boil all (except onions) a few minutes; pour over the cab-

bage, while boiling; cover closely and it will be ready for use in few days.

### Use of Fruits and Vegetables.

Every summer much sickness is produced by the use of fruit and vegetables in improper condition, and many therefore discard their use entirely. This is not only injudicious, but extremely dangerous, for at no season of the year are vegetables and fruit so much needed, and therefore healthful, as in the heat of summer. Nature craves a liberal supply, and he who denies the demand does so at his own peril. If persons are willing to run the risk, they may do so, but we have no patience with men who deny them to their families, especially to children. Children will obtain fruit, and if it is not furnished at home in proper quantities and condition, and at the worst times it will be had in improper quantities and condition, abroad. The only safe way, therefore, is for parents to furnish children the best fruit they can obtain, and a liberal supply, and thus learn them to distinguish between the good and the bad. A supply of fruit is almost a sure preventive of bilious and other complaints so common in the summer season.

The Southern rebellion has taught our surgeons the necessity of vegetables to the health of an army, and their entire lack of a sufficient supply, has cost us thousands of lives. Prof. Loomis, in the Patent Office Report, shows the reasons why the use of fruits and vegetables have been considered unhealthful in cities, and we make the following extract, which is not only worthy of perusal but of remembrance:

*"Here lies the whole trouble; the vegetables of the city are not the vegetables of the country!"* The latter are usually gathered and eaten at the time of their perfection, the former before or after; in either of which cases their chemical constitution, as we have seen, is not that of the ripened fruit; the one is digestible, nutritious, and cooling; the other either acrid or irritating, or indigestible and poisonous.

These chemical facts fully explain all the results attendant upon eating fruit and vegetables. When eaten fresh-gathered in the country, they fully answer the character we have assigned them, as being the most healthful and beneficial of summer food in the city, after leagues of transportation under a burning sun, and hours of storage in addition, they are well adapted to justify the common suspicion as to their sanitary qualities.

The countryman, as he gathers the full grown and luscious products of his own fields, may know he is receiving for himself and those he provides for, gifts from the goddess of health. The citizen, as he returns from the market, may well reflect whether the goddess of health or traffic presides in that mart.

Though the solution of the whole case is so simple the remedy appears to be less so.

It is difficult to get sufficient supplies of proper vegetable food for a densely populated city; so difficult in fact, that we shall do a better service by indicating what is our best means of meeting the case as it stands, than of indicating the remedy:

1. It is better to do without vegetables altogether, than to use them in any other than their prime condition.

2. No intelligent provider for a household ought

ever to bring into his home, fruits, berries, or vegetables, green, unripe, over-ripe, wilted or decayed.

3. Produce purchased in market, because it is cheap, or under-price, is culpable economy; it is paying half price for what is not only worthless, but worse.

4. Salads, lettuce, kale, cucumbers, peas, and green corn, wilt under any circumstances in a few hours, and should therefore be eaten the same day gathered. Beans should be picked, shelled, and cooked immediately.

5. Berries, melons, tomatoes and all similar juicy fruits, having but a brief interim between the unripe and decaying condition, are always just objects of suspicion and intelligent examination."—*Rural New Yorker*.

### How to Polish Shirt Bosoms.

I was somewhat amused by the letter from a young housekeeper, Mrs. Pry. As she feels desirous to make her husband's shirts, bosoms and collars look nice, I will tell her how my wife does up mine.

The first thing is to wash them clean, then starch them thoroughly with the best of starch. A little pure spermaceti or dissolved gum Arabic in the starch will improve it, but have the starch thick, and work it into the linen thoroughly. When in a proper condition, use the common sad iron to smooth them and get them into proper shape, the same as though they were not to be polished. I would here say that you cannot polish linen on a soft cloth. Take a piece of hard wood (I use birch) say 10x14 inches, or size of a shirt bosom, and plane it even and smooth. When you use the polishing iron lay the linen on that, without any cloth underneath; a liberal supply of elbow grease is indispensable to make the ting look first rate. Now for the polishing iron. We use McCoy's patent. I have seen several kinds, but I like this the best. You cannot polish with an iron with a flat face; the one I use is made something like a small shoe, with a round heel on both ends, nicely polished, and care should be had to keep it so, if you wish to have your linen look well. The linen we buy at the stores, is polished by men, or machinery, which gives it a finer polish than can usually be given by females. But if Mrs. Pry will get a good polishing iron, and follow the directions as given, she will not feel ashamed of her husband's bosoms and collars.—*American Agriculturist*.


**HUTCHIN'S CIDER MILL.**—We hear glowing accounts of the value of this mill, for making cider and wine. Being of iron it occupies but little space, and its cheapness will recommend it to every person who has a small orchard, that he may dispose of the windfalls in the way of cider, or he can make up a daily supply of *sweet new cider*, so valuable at this season and through the autumn. H. W. Austin of Chicago has them on sale at \$20. His card was not in time for this number.

at Tolona, Champaign county, I saw dwarf plums loaded with fruit—saw no signs of curculio. Dr. Chafee, on whose grounds I saw them, told me that his experience had given him ten times the confidence in the dwarf plum there, that he had in dwarf pears. And it was apparent he had an abiding confidence in the latter.

**OTHER SORTS OF FRUIT GROWING HERE.**—Hard-shelled almonds, nectarines, apricots, Spanish chestnuts, the olive and quince, were growing on Dr. C.'s grounds, and hardy. Quinces were very productive—ditto nectarines, apricots and almonds. There were also figs growing in the grape-ery.

**THE EARLY MONTMORENCY CHERRY** was growing on the same grounds under the name of Early May or Early Richmond. It came hither under the latter name, from an Eastern firm. And thus had my friend, Dr. C., been mislead as to the real character of the Early Richmond; and he had mislead others. The influence of a single error in such matters cannot be estimated. And too great care cannot be exercised in the nomenclature of fruit.

**THE MISSOURI FLOWERING CURRANT**, so extensively talked of the Illinois State Horticultural Society, at its last meeting, is growing here, and is bearing abundantly. It is called sweet, sprouts from the root, all over the garden. Dr. C. says, "Once in the garden, it can't be got rid of."—C. D. B., in *Rural New Yorker*.

 The rule to prune grape vines in summer is, to cut back the fruit-bearing canes to within two or three leaves of the clusters. Now is the season to do it; but you should not so prune that that no new wood will be left to bear fruit next year, as it is the canes that grow this season which produce fruit next year.

### Saving Seeds.

Every farmer should save his own garden seeds. The cost of a new stock every spring from the seedsman is no small item of expense. After once securing good kinds and growing from them in a careful manner, he is sure of having good and reliable seeds, and many varieties of vegetables may be improved by judicious management. But without special care the tendency is to deteriorate, particularly in the hands of unskilled growers. Deterioration arises from two causes, viz: in growing from inferior specimens; and in growing two or more varieties of the same species so near each other or promiscuous fertilization. Many persons who pretend to save their own seeds often gather the refuse at the end of the season, after having gathered all the best for family consumption, such particularly, as peas, beans, &c. The consequence

**DWARF PLUMS ON THE PRAIRIES.**—On the Prairie



is, the seedling crops raised from such seed are late and of inferior quality. None but the best and earliest products should be saved for seed, and none picked for family use from that portion allotted for seed; always selecting the largest and fairest specimens for planting. In observing this rule, almost every variety of vegetable may be improved in quality and product. For instance, in practising upon this principle, for a period of twenty years with Lima beans, in saving for seed only such pods as contained the greatest number of beans, we increased the product at least one third. Besides the importance of commencing only with the best kinds and continuing to save only the best specimens for seed, it is also a matter of the first importance that no two varieties of the same family be permitted to go to seed near each other, for they are sure to mix, and the product almost always proves an inferior quality. Degeneration is very strikingly apparent from this cause among such vegetables as cabbages, turnips, beets, radishes, and particularly among the vine tribe, such as squashes, melons, cucumbers, &c.

After vegetables are thus degenerated, it leads to the common idea that they have "run out." There need be no running out, but on the contrary many varieties may be improved by careful and judicious management. Most plants are fertilized through the agency of bees and other winged insects, and the winds, and it is almost impossible to grow two or more varieties of the same species in the same garden of ordinary size, without liability to admixture or fertilization. The vine family, such as cucumbers, squashes, &c., belong to that class of plants known botanically as *monœcious*, that is having two kinds of blossoms on the same plant, one possessing the stamens and the other the pistils only. These are probably almost always dependent upon the agency of insects to transport the pollen from one to the other to render them fertile, and when two or more varieties are planted, even at a very considerable distance apart, it is impossible to avoid crossing the varieties. Indian corn, though belonging to the same class of plants named above, produces its pollen in great abundance on the top of the stalk, and being so extremely light and fine it is wafted by the winds to a great distance, and thus produces mixture. To avoid this in garden vegetables generally, no two varieties of the same species should be permitted to go to seed in any garden of ordinary size. Professional seedsmen manage to raise different varieties of the same seed in different fields, as widely separated as possible. By thus observing these simple rules farmers may keep up a supply of seeds in a pure state. One variety of the same family may be permitted to go to seed this year and another the next. Most varieties of seed retain their vitality for two or more years.—*Country Gentleman*.

—A gentleman at a ladies' fair lately, being solicited to buy something by a fair creature who kept a table, said he wanted to buy what was not for sale, a lock of her hair. She promptly cut off the coveted curl and received the sum asked for it, \$100. The purchaser was showing the trophy to a friend. "She rather had you," said the friend; "to my certain knowledge she only paid \$3 for the whole wig."

## Correspondence.

### Early Bearing Fruits.

ODELL, Livingston Co., Ill., Aug. 18, 1863.

*M. L. Dunlap, Editor Illinois Farmer :*

DEAR SIR—I was greatly interested in your remarks on early bearing apple trees, in the April number of the *FARMER*. If dwarf apple tree are not reliable on the prairies why not let us have a full list of these trees. Who cares if they are 2d or 3d rate in quality. It would be a pleasure to raise an apple of any rate whatever. I am now over fifty years old, and have never raised an apple, pear, plum, or cherry. O let me have a tree that will bear before I am gone! Are there not young men, also, who are beginners, who would like to get a few such trees for use till better ones come to bearing?

I took your list to the nurseryman forthwith, with light visions of little trees in bearing on my 40 next spring. And why not? Some of them are said to bear at three, others at four, and others may be, (I don't know,) at five and six years from the graft. And can't I get trees from three to six years old?

Now look out for disappointment: "I can't fill your list," says the kind-hearted nurseryman. What! why, I should think every body in this new country would want just such trees. "Yes, but I can't get them. I have just ordered some from a large dealer in Bloomington, but can't get them only as an assortment, if I will order a large lot." I have just made my friend a call. He showed me two Keswick Codlins, five years old, two years set, bearing large handsome apples. Another tree of same age or younger, loaded to its utmost strength with large apples. It bore well, also, last year. It is the Hawthorndon.

Your list, Keswick Codlin, Cooper's Early White, Yellow Tryestric, Snow, Ramsdell Sweet, and Stanard. In the *Illustrated Register of Rural Affairs* 1857, I find the following: Red Astrachan, Saps of Wine, Late Strawberry, Powell, Oldenburgh, Dyer, Porter, Baldwin, Jonathan. Now I hear of the Hawthorndon. I should like to see a full list of these early bearers, with the age at which they usually bear with the proper culture. What kind of soil and culture would be most favorable.

The editor of the *Register* also says that the Julianne Pear takes the lead for early bearing of all others. And he adds many others, as early bearers: Bartlett, Washington, Dearbon's Seedling, Madeleine, Buffum, Onondaga, Howell, Summer Doyenne, Oswego, Beurre, Passe Colmer, Easter Beurre. Mr. C. D. Bragdon says, "Buffum doe



not come into bearing early," in his visit at Waukegan, in 1862, but says, "I cannot do the Flemish Beauty justice;" "it bears early and often, and all the time as a standard. There are hundreds of bushels growing about here. Every tree is loaded, and this variety is considered the standard pear for the West—hardy and always productive. The Flemish Beauty on pear, and Louise Beurre on quince, may be emphatically recommended, and a bushel of either sort can be raised as *soon*, as *easily* and as *surely* as a bushel of apples, and where that apples will grow." "In regard to the sureness of the pear crop," he goes on to say, "Mr. Wm. S. Carpenter, a successful pear grower of Westchester Co., N. Y., who chanced to hear us read the proof of the above, remarked that 'he would rather raise a bushel of pears than apples,' considering them a more certain as well as a more profitable crop."

I wish this all true, but it seems too good to be true. Can other nurserymen confirm? Now, I want some of these trees, both apple and pear, and if I can't get them without, why I must raise them, that's all. Who will furnish me with them? I thank you, Mr. editor, for bringing this matter to light, and I hope that you will find it convenient to say more on this subject, and in reference to other kinds of fruit, also.

Very truly yours,

B. C. CHURCH.

—The above is to the point. When planters demand certain varieties they will be grown. This system of the nurserymen making the selection, giving you an assortment, is the merest humbug. Suppose a merchant would not sell you half a dozen towels unless you take a general assortment of his goods, what would you think of him? No, but the nurseryman will not sell the tree dealer his choice varieties at the usual wholesale rate, these he keeps for his customers. Send your order direct to the nurseryman for certain varieties and ten to one you will get them.

The Hawthorndon has not proved hardy, nor is it a reliable bearear like the Codlin, hence, though an early bearer, it is of no great value. We sometimes have it loaded to the utmost with fine fruit, of excellent quality for cooking, and then again not a blossom will set. We have now in the nursery, in bearing, Codlins, Cooper Early White and Yellow Injesture; some of the trees are heavily loaded. The latter is too small to be very profitable. The Red Astrachan bears alternate years, at from five to six years from transplanting of four year old trees. Saps of Wine or William's Favorite is not an early bearer, say six to eight years, it is a desirable apple. We have a few this year on

trees set five years. Neither the Late or Early Strawberry have proved valuable, or profitable with us. Lowel we highly esteem. The tree is beautiful, the fruit is large and fair, and the trees bear rather young, say at five to six years. Duchess of Oldenburgh is another valuable apple, bearing in four to five years. Dyer, we have failed to get trees, and cannot speak of it from personal experience. Porter bears good crops but tardy. Baldwin we would not plant at all. Jonathan is a good and early bearer, say six to seven years, considering it is a slow growing tree. It will doubtless be one of our popular apples after awhile. Early Pennock is a desirable variety for its abundant crops.

When a man talks of growing pears as cheap as apples, we simply set him down with the pear fever, which will have its run until he gets a dose of the leaf blight. The Flemish beauty we place at the head of standard pears, but they require six to eight years to give you fruit. The Bartlett, Doyenne de Ete, Madeleine, Beurre, Gobault, Louise Beurre de Jersey, and Beurre Auraulis all bear young, that is to say two year old trees, the second year after setting out. Madeleine and Doyenne de Ete are valuable for their earliness in the season. One-fourth of our stock of pear trees, is of Louise Beurre and another fourth of Bartlett, one eighth of Flemish Beauty, and the remainder some half a dozen sorts. Like you, friend Church, we want pears in this life, if we have them at all, that is we prefer a share of them to giving all to our posterity, we plant for our own use. We have large trees of the Flemish Beauty and the Buffum in full bearing. The latter is tardy on its own roots, but bears young on the quince. We have several trees now loaded with fruit, it is one of those fruits that improve in your estimation by acquaintance.

Last fall and spring we sold several orchards of Keswick Codlin, Snow Apple and the Stannard, ranging from two hundred to a thousand trees each.

We cannot sell to tree peddlers for one reason, that we have no sort that we want to get rid of, which we would not send to our customers. In another connection will be found an item under the head of tree selling.

We think most of the nurserymen have the varieties named; of course we don't mean that class of nurserymen who from tree peddlers, have grown a few trees for sale and call themselves nurserymen, and yet purchase most of their stock. These men must come under the head of tree dealers.

Now friend Church, if you will plant the Early Scarlet, Wilson's Albany and Longworth's Pro

lific strawberries, Red Dutch currant, American Seedling Gooseberry, Black Cap and Purple Cane raspberries, the Improved blackberry, the May cherry (Kentish of Downing), Bartlett and Flemish Beauty pear on their own roots, Doyenne de Ete, Madeleine, B. Goborett, L. B. de Jersey pears on the quince; Keswick Codlin, list as before mentioned of the apple, select dry ground, cultivate and shelter them as we have often urged, and if you do not leave this world on a very short notice, you will stand a reasonable chance to enjoy fruit of your own growing.

We would have you plant a few peaches and plums, among the latter do not forget the Lombard, as it stands among plums where the Codlin does among apples.

We are marketing apples from our orchard set in the spring of 1858, of three years old trees taken from the nursery at the close of the spring sales, of course a second class tree. Some of these trees have on over a bushel of apples each. The first class or selected apples sell at one dollar the bushel and second class, including windfalls fifty cents a bushel.

Near forty years ago, we urged our father to put out a large orchard, say of three or four hundred trees, but the answer was they would be worth nothing to sell, as every body would have an abundance of fruit. Apples were worth then fifteen to twenty cents a bushel, for the winter grafts; but we have seen no downward tendency in the market, nor are we alarmed as to the future. If he was now here to look over our orchard he would wonder what we could do with the fruit.

There are other fruits that bear young in some locations, that should not be overlooked, but those named are so reliable and otherwise valuable that they should command the attention of every tree planter.

We think that a larger number of farmers' orchards will be set the coming fall than usual, as we have an unusual large number of orders, averaging about two hundred trees each.

### Cheese Making.

SOGONE, Dupage Co., Ill., Aug. 18, 1863.

To the Editor of the Illinois Farmer:

DEAR SIR—I am glad to see you take a little notice of our Illinois product, which at no evry distant day will take its proper place among the productions of the State, and will be quoted first as it should be now in the market reports instead of third.

I allude to the article of cheese. The fault that Illinois cheese stands no better in market is the

fault of two classes, the manufacturers and the consumers or retail dealers.

The fault with manufacturers, is, they do not take pains enough in manufacturing, they do not provide themselves with proper fixtures to manufacture or suitable places for curing.

I have visited many cheese makers, but have not yet seen one suitable place for curing cheese. No matter how a cheese is made if not properly cured, it will not command the best price. There is much poor cheese made in Illinois I am willing to admit, but there is as good cheese made in Illinois as there is in Ohio or New York, and it sells for as much to consumers, but it is sold under a borrowed "brand."

I have repeatedly been around to the retailers to sell them cheese. The first question is, "where was it made?" answer, "in Illinois." "Don't want it." "But it is a first rate article, if you will look at it I think you will like it." "No, we sell none but 'Hamburg' or 'Western Reserve,' can't sell 'Illinois cheese,' our customers will not buy it."

There is as good cheese made in Illinois as in Ohio or Hamburg and sold in Chicago, but at a less price than Eastern cheese, but when resold brings the price of Ohio and New York cheese to the great loss of the Illinois manufacturers.

The time will soon come when Illinois cheese will not give place to *cull* cheese from the East. If the farmers of Illinois who propose going into the dairy business will procure good fixtures and good rooms for curing their cheese, and inform themselves of the best modes of making, they can drive all Eastern cheese out of the market, as we have most other Eastern farm products.

Many of the cheese dealers in Chicago are Eastern men, and are interested in crying down Illinois cheese. They profit by buying at a low figure and selling it as Hamburg and Western Reserve.

Illinois cheese makers do not take the trouble or expense to make themselves masters of the business, and the fixtures needed.

The harvest with us is over and the crops secured in good order. What oats have been threshed yield 60 to 70 bushels per acre, and wheat 10 to 16; the corn never looked better; grass was light, but good and well secured.

Yours truly,

S. D. PIERCE.

—The middle men or commission merchants, as they are usually called, are in general a useful class of men, but will at times bear watching. They sometimes are a little too sharp for their own good, and in this case are making a losing game of it, as a large number of our best dairies now go direct to the consumer and to the retail dealer.

From sundry letters received of late, we learn our notice of the cheese trade is having a very decided influence in opening the eyes of the cheese makers, who have been very cleverly done out of two or three cents on the pound. At least six dairies are selling to customers among the dealers, and have succeeded to the full extent of their stocks. The retailers are pleased with it, as they pay the maker ten cents, the price that dealers pay for "Hamburgh," and thus save the commission.

S. writes us that he sold a Chicago dealer a load of cheese, nearly a ton, as "Illinois cheese," at seven and a half cents per pound. A few hours afterwards he called into the store, and the clerks were busy boxing and labeling it "Hamburg." He inquired of them the price of this cheese, and they informed him eleven and a half cents, and the usual charge of a cent an inch for the box. In a few moments a city dealer paid this price for two of these cheese, weighing in the aggregate one hundred and eighty pounds, making the nice little sum of seven dollars and twenty, or near eighty dollars on the load. This was a little too much for him, and he naturally termed the transaction a swindle. He now supplies several of this dealer's retail customers at one cent a pound less than the selling price of "Hamburgh." He thus saves not less than three cents a pound, and the retailers save one cent; a nice little sum that the cheese dealer was wont to make.

We say to all dairymen, to sell your cheese on its merits; have it inspected if you choose, but do not be done out of your honest earned money by this slight of hand.

Here is another letter.

"I am now selling my cheese to the retailers at ten cents, and am offered for the whole stock of the season nine cents by a cheese dealer, but I prefer the ten of the retailers. It is a little more trouble to deliver it, but not enough to make the difference in the price. One difficulty with much of our western cheese, is the want of a good cheese house where it can be properly cured."

As this branch of farming is now attracting a large share of attention, we intend to give it more space hereafter. Out of a large number of samples of this year's cheese, we know of but one lot that falls below No. 2, or Western Reserve. Three years ago we knew of but one small cheese dairy in this county, now the demand is nearly supplied at home, the makers getting nine to eleven cents a pound.

Ed.

### Lombardy Poplar for Hedges.

TISKILWA, Aug. 22, 1863.

To the Editor of the Illinois Farmer:

DEAR SIR—Much is said in regard to fences and

fencing material in the Northwest. The Osage makes a good fence, but at present I suppose the seed is hard to be got, and aside from that it requires great pains and labor to keep it in good order, and if not kept well trimmed, and the rubbish cleared away, it soon becomes a nuisance. Does not the country afford ample material for fencing? Many of the soft woods, such as the various kinds of willow, the cottonwood and the Lombardy poplar. These will grow from the slip, are easy obtained, and are fast growers.

When I first came to this State in the spring of 1844, I stuck some cottonwood slips in the earth that was thrown out of a ditch made for a fire. I sold the farm, returned last fall to take a look at the trees that had grown from the slips stuck in the bank. The man on the farm told me the largest had been cut for wood, but I found many large enough to make from a half to three-fourths of a cord of wood from 18 years growth. The ditch had long ago been abandoned for a fence, and the rains and frosts had nearly leveled the bank with the original earth, so that the trees had not a fair chance.

I have seen the cottonwood when set eight inches apart and four years' growth strong enough to turn any stock. I have seen the Lombardy poplar at eight years' growth from the slip, eight inches in diameter, two feet from the ground. I have a piece of fence on my farm of the Lombardy poplar, set four years last spring and turned out against all kinds of stock. The slips were cut the first of December, and buried in the ground, remained there till May, then cut about eight inches long and set six to seven inches deep, twelve inches apart. All grew but three plants in thirty rods, and two of them were trampled on by the horse when plowing; they are now from two and a half to five inches in diameter. I have about thirty rods put out last spring that are now from two to three feet high.

This timber when cut green and allowed to dry, makes excellent stove wood. A German told me that in the old country he had seen the Lombardy put out for fence, and after four or five years, cut it three to four feet high, every three or four years and thus the farm was supplied with wood.

I shall have a few thousand cuttings to spare this fall and winter, and persons wishing to make a good and cheap fence, and supply his farm with plenty of wood, and at the same time good shelter, and withal ornamental, can have their wants supplied by addressing me at Tiskilwa, Ill.

The Lombardy has advantages over the cottonwood—the latter sheds off cotton and seeds and sprouts from the roots, the former does nei-

ther. The cottonwood when planted close leans this and that way, and the top grows rough and uneven, but the Lombardy grows upright and is purely ornamental in form. M. GREENMAN.

—Now that our people are cut loose from old notions in regard to hedging, and have entered a wide field of experiment, we shall see some progress in the cheapening of this heavy draft on the farmer. The cost of fencing is the great drawback, and we now look forward to see it reduced.

## Miscellaneous.

From the Country Gentleman.

### By the Month or by the Year.

EDS. CO. GENT—In the old countries of Europe, the practice of hiring farm labor by the year is prevalent, and has been, I suppose time out of mind. More than that it is common for the farm laborer to remain with the same employer life long. A farmer in Buckinghamshire once told me that he, meaning himself, his father and his grandfather had rented that farm (the one he was showing me) 120 years, and that scarcely a farm laborer had been dismissed from it in all that time. There, and in many parts of Europe, the farm laborer has his cottage, small but substantial, neat and comfortable, on the farm which he assists to work, with his flower plat and vegetable garden around him. He knows all who live near him; is known by all; and he is loved and respected by all, if an honest and worthy man. Were farm labor as well paid there as here, he would be a happy man, and could easily educate his children in a way to qualify them for any pursuits in life, for which their tastes and talents might adapt them.

Now if there is not to be a class of men here as well as there whose business is farm labor, and not farming on their own account, I know not how the farming operations of our country are to be sustained, for I fancy it will be long before each landholder will cultivate all the land he owns with his own hands, or with his own and those of his sons. If there is to be such a class—men who cultivate the soil under the direction of others—does it not become the agriculturists of this country to look to their welfare, and so to modify the system of farm labor, that while the farmer himself shall not suffer by the change, the farm laborer shall be put in a better position than that of being hired three, six or nine months, and then turned adrift the rest of the year.

I would by no means advocate the cause of the farm laborer at the expense of the farmer. The farmer who owns the land, works it himself, and trains his sons to work it with him, limiting the extent to so much as he and they can work well, is among the most useful and the happiest of men. That a few cultivators should be lords of the soil, and that the many should be "farm servants" to them, is just what we do not want, and hope never to have in this country. What then is to be done? Shall we limit our ownership to so much land as the owner can cultivate without going out of his own family for muscle? That would be neither

possible nor desirable. It often happens that men of feeble constitutions prolong life and usefulness by carrying on a farm mainly by hired labor. Oftener still, are farmer's widows and orphans left in a condition in which, to conduct the farm by hired labor, is their only resource.

Both farmers and farm laborers are essential to the welfare of any country. But it is not farm laborers for life that we want. Young men in the lack of means to hold and conduct a farm on their own account, often find it to their interest to hire out a few years, to husband their wages the while, to learn the business well first, and then to commence farming on their own account. After such apprenticeship with a good farmer, they are very apt to become good farmers themselves. Others there are, who, though good at farm labor, and perhaps hardly fit for anything else, yet lacking the skill to manage a farm on their own account, may better remain longer, in some cases perhaps for life, laboring under the directions of others. One thing is certain—our vast domain will never be all owned and cultivated by the same men. Farmers will be wanting help, and farm laborers will be seeking situations. Farmers in the vicinity of cities and villages will always find it to their interest to hire some labor by the day in hurrying seasons; and everywhere mechanics, more or less, will afford assistance in harvest time.

The question is, whether beyond these mere temporary resources, farmers will hire by the month or the year. The practice for only hiring a part of the year—three, five, or seven months—seems to have grown out of circumstances, as the condition of settlers in a new country, peculiarities of climate, &c. Vegetation with us is more rapid than in most parts of Europe. Many a farmer will ask, why hire a man for the whole year, when from the very nature of the climate, most of the work must be done in April and the four or five following months? I grant that here is a strong argument. But is it unanswerable? You say you have nothing for a man to do in the winter. But is this so? I grant that a large part of the plowing, all the planting, sowing, weeding, and harvesting, have to be done in a hurry, and you have not much choice as to the time. But there is much to be done on a farm, which can be done when the growing and securing of crops can not. I am not without experience on the farm; and I know that while much of the work must be performed, not when we might wish, but when the advancing season requires, there is also much that awaits our convenience. It is possible to distribute farm work over the year more equally than many suppose. How to do this, deserves the farmer's most earnest study. If by careful forethought the problem can be solved, as both to enable the farmer himself to avoid excessively severe labor in summer, and to reserve moderate employment for himself and his men through other portions of the year, I believe great benefit will result to both employer and employed, and to the cause of agriculture, and I sincerely wish that the question may be fairly and fully discussed. N.

### Leicester Sheep.

The new Leicester breed was brought to its great perfection through the skill and perseverance of Robert Bakewell, of Dishley, in the county of



Leicester, England, who was justly considered in his day the most profound breeder in the kingdom. Like all men of true genius, he marked out a course entirely new to the world and peculiar to himself, and having discovered principles hitherto unknown, by which nature properly directed can be made to produce almost any given form in the animal creation, he had the firmness of character and indomitable courage to persevere against envy, prejudice and persecution, until he had vindicated his superior judgment and sound philosophy in the product on of this invaluable breed. His triumphant success made him famous throughout the world, and he was counted fit to be classed with such benefactors as Arkwright, Bolton, Watt and Stephenson—men who left their impression upon the age in which they lived, and did more to increase the material wealth of England than all her statesmen and heroes.

He it was who originated the system of breeding rams for hire, and to illustrate the soundness of his judgment, and the value of this breed, it may be stated that in 1760 his price for rams for the season was 17s. 6d. sterling, or \$4 37 of our currency, and gradually advancing; in 1780 it was 100 guineas, or \$500. In 1789 he made 1,200 guineas, or \$6,000 by the hiring of three rams, and 2,100 guineas, or \$10,000 for the use of seven. For the balance of his rams for the season from the Dishley society, then just instituted, he received 3,000 guineas, or \$15,000. It is much to be regretted that one so distinguished for his rare judgment and capacity as a breeder, should have left the record of the system by which he produced such marvelous results, but for some unexplained cause he chose to carry with him into the grave the knowledge which had enabled him to so enrich himself and his country. It is known, however, that he selected the best animals of their kind, and by coupling them together, developed the qualities which he regarded as most valuable. He held rigidly to the doctrine that "like begets like," and sought as far as possible to confine his experiments to animals that were the descendants of approved qualities. It has been frequently asserted that he was in the constant habit of "breeding in," but this is purely conjecture, as it is a matter of history that he trusted no one with the secrets of experiments. His only confidante was an old shepherd who alone knew what animals were coupled, and he was pledged to profound secrecy.

The new Leicester breed comes to maturity much earlier than any other, making the lambs exceedingly valuable for market. They are reared in all the better agricultural counties of England, and especially in Lincolnshire, Norfolk and Cambridge, where the "fens" and marshes correspond in soil and character very nearly to the prairies and rich pastures of the West.—*Ex.*

—In this county, (Champaign,) is one of the best flocks of the above sheep to be found in the West, from which ram lambs can be had at ten dollars a head. If the owners would advertise them they would soon find buyers, for they are second to no long wool sheep in the State. As a mutton sheep they cannot be easily beaten anywhere.

### Wool Growers' Meeting.

Notice has been given to the wool growers of

Illinois that a convention of those interested in sheep and wool raising will be held at Decatur, during the time of the Illinois State Fair.

It may not be untimely now to remind the sheep men of Ohio, that the Wool Growers' Convention, which met here last April, adjourned to meet again in this city on the evening of the second day of the Ohio State Fair; and that in the resolution for this second meeting an invitation was extended to all wool growers, manufacturers, and dealers in wool, to attend and take part in the discussion and proceedings of the meeting. This meeting will, undoubtedly, be largely attended by the flock masters of Ohio. The wool question has this summer, been second only to the question of putting down the rebellion, and by the middle of next month, the wool market will probably have assumed such a shape as to make it profitable to compare notes. And then upon the original question which led to the calling of the first meeting—that of sheep washing—sheep men will be better prepared than they were last spring to take a positive position. The question has led to considerable discussion through the columns of the *Ohio Farmer*, as well as in private circles, and wool growers will come to this meeting prepared to act. We hope that the manufacturers will frankly accept the invitation extended to them. They have not been remarkably free in telling what their experience has taught them with regard to the difference between washed and unwashed wools—satisfied, apparently, with the advantage which a deduction of one-third from all unwashed wools gives them. We say advantage, because there can be no question of the fact that in deducting all wools—all grades and all clips—alike, there is an advantage gained over the growers. Let the manufacturers come up to this meeting, and meet the wool growers face to face—give their reasons and arguments for discriminating so heavily against the unwashed wool. They will find the Ohio flockmasters reasonable men, open to conviction where the arguments and facts are against them—but at the same time, more alive now than they ever were before to the importance of the interest which they represent. In the wool market, Ohio now takes the front rank. The wools from no other State are quoted so high nor so eagerly sought after by the leading manufacturers; and our woolgrowers are disposed to remain in the front rank. So let the manufacturers and their agents come forward to this meeting and help them to determine the question under discussion. Remember that it is to be held on the 6th of September.—*Ohio Farmer.*

### How to Catch Rats.

In answer to an inquiry in the *London Field*, several correspondents of that paper give their experience as follows:

"For the benefit of your readers, I will give, by your permission, my experience on the subject. I was very much troubled with rats, and tried every known dodge for catching them, without success, until I adopted the following plan: I set an ordinary steel trap in their run, and covered it over with a duster or cloth, and within a few hours I caught every rat on my premises. A clean cloth is necessary every time the trap is set. I found a



butter cloth the best decoy. I am informed by my son, who was stationed at Bermuda, that a convict was rewarded for revealing his secret for attracting rats, which was cantharides steeped in brandy, (Tr. Lyttæ;) but I cannot make out the number of drops used. The best way to catch rats with a steel trap is to put the guard up, and lay the trap down as if set; feed the rats for a few day, always putting the meat on the kettle-board; they will eat it and get quite familiar to it; then all at once begin and catch them; wait upon the trap, and if they have been well fed, they may be taken nearly as fast as it can be set. I have taken by this means seventeen in one hour, and at one time I had two—one by the nose and the other by the fore foot—and I had only one trap set.

### Prospective Prices for Wool.

MESSRS EDITORS—I have just been reading "Out West's" answer to "Small Farmer's" communication with regard to "Out West's" first letter, with respect to to *prospective* price of wool. I must say, Messrs. Editors, that "Out West" crawls terribly. "Out West" wants to know how it happens that we never hear any growling about the price of wheat by wheat-growers. Will "Out West" please look at the difference in which wool and wheat are marketed? If "Out West" has watched the wool market as long as I have, he has discovered some things peculiar to it, and very much unlike the marketing of any other crop. There is no other staple crop grown in the United States of America which is bought by so few hands, or which passes out of growers' hands in so short a space of time as the wool crop. How does it happen then, "Out West," that it is particularly necessary for Eastern manufacturers and out West woolgrowers to anticipate the market by a week or two, and give small farmers a chance to get rid of their crops at a big figure?

You know, "Out West," that we have been terribly taken in, during the last two years, and is it at all strange that we hang tight to our wool and view with distrust all attempts of all out west correspondents to seduce us to part with our wool at a low figure? I feel, "Out West," that "Small Farmers" has sufficiently answered your first letter; I am only talking about your answer to his communication.

I live out West too, but no one has ever yet given me a commission to buy wool for a cent (a whole cent!) per pound, for they know me better, or can find me out. I have got 2,250 fleeces of my own raising stacked up, for which I expect to get 75 cents per pound, and it will take two or three "Out Wests" to persuade me that I ought to sell at 50 or 55 cents per pound.

I would give you, Messrs. Editors, and "Out West," a good many reasons why I think buyers are not offering enough for wool—even since the fall of Vicksburg—but I refrain. What men could be influenced by the talk of "Out West" have already sold their wool, (and some one has got a cent per pound for buying it,) and such as believe as I do, have got their wool stored in thier wool-rooms, and "don't care whether school keeps or not."

Fair play is a jewel, and all I wish, is that the "bulls" in the wool market may have a fair show with the "bears."

We may or may not be deceived as to what wool

ought to be worth at present, but I calculate that in the present instance we can see as far into a millstone as the men who pick a hole in it. Can you Messrs. Editors, or can any other man, see into the future three weeks? If you can, I wish you would set up a prophecy column.

I would like to hear from some well qualified correspondent, on this question of selling wool. I would like to have him run back over the past twenty-five years, and show us the particular years in which we "took in" these benevolent and well disposed men—wool-buyers and manufacturers.

A WESTERN WOOL-GROWER,  
Logan Co., Ill. *in Country Gent.*

### New England Weather and Crops.

During the past month, there has fallen in this section of country, rain equivalent to more than twelve inches upon a level, and the ground is completely saturated with water. So much moisture, united with the full average heat of the season, has given an unusual growth to the grass in the pastures, and has had a most favorable effect upon vegetation generally. Upon fields mown early in the season, the second crop has started in many places with a luxuriance almost equal to that of early spring and the prospect now seems to be very favorable for making up in "rowen," a good part of the deficiency in the first crop of hay.

Throughout New England the dairy prospects were never better, and the abundance of feed cannot fail to have a most important influence in the abundant production not only of butter and cheese, but also of fat beef and mutton for the autumn markets. If any crop has suffered from the superabundance of wet weather, we think it is Indian corn. The crop was very backward in consequence of the cold and drought of June, and now, although it is of good color and has a thrifty look generally, we think it has not that stocky appearance which it usually presents when the season is altogether favorable. However it is too early yet to determine fully how much, if any, it will fall short, but we know that very much still depends upon a spell of hot dry weather.

Potatoes are looking finely, and the early kinds are coming to market. Of course they are not fully ripe, but generally preferred by city people to old ones, they meet with ready sale at good prices. As yet we hear nothing of the rot from any quarter, and unless we should have a succession of moist hot days while the tubers are ripening, we may hope to have an average exemption from that disease which has in recent years proved so serious a loss to the agriculturists on both sides of the Atlantic.

The small grains are now ripening with us, and we think more than an average crop will be realized in New England. We have never seen rye, oats and barley looking better than at the present time, and as a larger breadth of ground has been sown with these grains the past season than usual, the increased production and excellent quality will go very far to make up deficiencies that have resulted from the very uneven distribution of drought and moisture during this very peculiar season.

On the whole, in this midsummer of the year, whether their observations are prospective or retrospective, we think that the farmers of New

England have every reason to be glad in the bountiful realization of the present, and hopeful in the cheering prospects of the future harvest.—*Mass. Plowman, Aug. 1.*

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, AUGUST, 1863.

THE harvest of the cereals is now over, and the threshing machine is busy everywhere; go where you will in the country, its music is ever present. In the extreme north part of the State the yield of spring wheat has been good, while further South it has suffered from bug and rust, both the result of late sowing. Some people persist in waiting to have the ground settle before sowing and are then often delayed by heavy spring rains. *Spring wheat must be sown as the frost is leaving the ground.* Barley and winter wheat are both very fair on the whole. These crops are both becoming more popular and now many farmers have thin, small fields, of winter wheat and barley.

Last spring flax was the exciting topic, and was extensively sown, and has resulted in a very good crop. The great difficulty met has been its disposition to grow stocky and branch out, giving a coarse, short staple. This has come of thin sowing year after year of seed—a few years of thick seeding will correct this. We have never been able to see the value of thin seeding, even when grown for seed, except in the saving of seed at the time of sowing, and have generally sown one to one and a half bushels to the acre. Flax needs rich land and must have it.

The culture of flax, of winter wheat, of barley, of oats and corn, is fast changing the system of culture in many parts of the State, and bringing us to that system of mixed husbandry which we shall find more profitable than to grow one staple exclusively.

The weather with us has been dry. The last heavy rain occurred on May 28th. We had a moderate shower June 28th, a month later, and three or four slight showers since, wetting the soil about half an inch, but apparently doing little good. The corn crop is now seriously damaged beyond hope—nothing can make it more than half a crop, and a continuation of the drouth will make it much less. We see no signs of rain, and at this date—August 18—things look decidedly gloomy for garden truck, corn, and potatoes. Fruit will be small

and the apples are falling badly, especially where the trees are in grass. The land was in bad condition for a dry time, being like a mortar bed from the heavy winter and spring rains, and has leaked badly. Individually, we have less to complain of than our neighbors; the light showers have been more generous with us, doubtless, on account of grove like attractions, as our ten acres of timber belts and near a hundred acres of nursery and orchard standing, as it does, on the open prairie, four or five miles from other timber, has its influence on the rain clouds, and the result is the giving down of a more profuse shower. Yet, with this, we are suffering severely, while some of our neighbors who have not had the dust laid on their farms since June 28th, are nearly parched up. The general planting of trees which is now pretty well under way will do much to ward off the long summer drouths.

Stock of all kinds are suffering for the want of water, and many of ours stock growers are shipping to reduce their herds for these reasons. Butter and cheese will of course run short, and already we see symptoms of an advance in the price.

Now is a good time to dig wells and put in cisterns. How farmers' wives manage to do without cisterns, year after year, is a matter of surprise. We sometimes think that a farmer's wife who will put up without a good cistern, is too tame altogether—too much of nobody to make a good housekeeper, and are very apt to think there is something wrong about the house when this invaluable institution is wasting. There are certain things needed about the house as absolutely as about the stable. This dry weather should stir up every cisternless housekeeper to the fact that just now is her time to have a good cistern put in, the cost is but a few dollars—fifteen hundred brick, a barrel of water, lime, and two or three days of a Mason and the farmer's help, and the thing is done.

Have nothing to do with these traveling cistern builders who put them in for so much a barrel, for they will fail you when needed. Make a good one while you are about it, have the walls of brick or stone, and do not for a moment listen to a plastering on the bare clay or earth wall.

You should now look through the potatoe field and run a large single shovel plow between the rows; this will not disturb the hills, but will clean out the weeds—those left in the hills should be pulled up and thrown into this furrow, and at digging time you will have some pleasure and a deal of profit in getting in a crop. Digging potatoes out from a crop of high weeds is a very sinful work, which we have never done but once and never in-

tend to repeat, as we fear our morals would not stand the storm of such another effort.

In sowing winter wheat or other grain or grass seed, a hand sower like Cahoon's is a great saver of labor, and by which you can do better work—at least two-thirds of the labor is saved—we had rather sow thirty acres in a day with one of these sowers than ten in the old way by hand.

We have heard a great deal about the value of drilling in grain, but have not been able to see it. We certainly would not drill in any spring sown grain whatever, and doubt its value on winter wheat—in some cases it may prove advisable, but give us a good smooth rolled surface and ample drainage, and can well take the broad cast sower.

The rags, weeds, and other trash that have grown up along the fences, had ought to be cut down at once, though it is a month later than the work ought to have been done.

We was at a neighbor's a few evenings since and found his front yard full of weeds that had been coaxed into a very good growth by some faint attempts at ornamental gardening. Several dollars had been expended for trees and shrubs, but aside from setting them out no attention had been paid them, and they were struggling against fate and weeds in the vain attempt to hold a few sickly leaves, should they succeed in this they will have little heart to grow next spring, and will probably give up the attempt in disgust. Near by was a new set orchard of fifty trees in the same condition. We fear it will be long years before its owner will have an abundance of fruit for his family.

This farmer cannot plead poverty as an excuse for this state of things, but a want of taste, and when we looked around on several young ladies—grown up daughters—we thought if the father had expended a few dollars for agricultural works that they would see through them at least that these things were not in good taste, but they cannot be reached in this way for they have not the works at hand from which to draw their lessons.

### Wool Growers' Convention at the Fair.

Few men, even wool-growers themselves, are fully aware of the progress of sheep husbandry in this State within the past three years.

Intelligent estimates place the number of sheep (including spring lambs), in the county of Sangamon alone, at about 200,000, and wool buyers, familiar with the trade, say there are 1,000,000 lbs. of wool for sale in this (Springfield) market. The assessment of 1861, shows only 60,000 sheep in Sangamon county. This is but a fair illustration of what has been going on all over the State, and indeed all over the prairie country of the Northwest.

In view then, of the magnitude, and rapidly increasing importance of this interest, it is not surprising that those engaged in wool-growing should desire to meet together in council. This they have determined to do in Decatur during the week of the Fair. And all who feel interested, from wherever they may come, are cordially invited to be present and participate in the discussions and transaction of business.

Communications addressed to A. B. McConnell, Esq., Springfield, Ill., will be promptly attended to.

**CITIZENS' PRIZES FOR THE FAIR.**—The citizens of Decatur offer the following splendid premiums to be competed for during the Fair. Lovers of fine stock will take notice accordingly:

TUESDAY, SEPT. 29.

PREM.

1. Fastest pacing horse, mare or gelding, in harness.....\$100
2. Fastest trotting double team without regard to matching—best two in three..... 100

[WEDNESDAY SEPT. 30.

It is expected Society's regular ring of carriage, single harness and saddle horses will be exhibited.]

THURSDAY, OCT. 1.

1. Fastest trotting mare or gelding of any age—best two in three—to go as they please..... 200

FRIDAY, OCT. 2.

1. Fastest trotting horse, mare or gelding under 4 years old—best two in three..... 100
2. Fastest trotting stallion of any age—best two in three—to go as they please..... 500

Entries for each ring will close at 9 o'clock, P. M., of the day preceding the day fixed for the competition.

An entry fee of ten per cent. on the amount of each premium will be charged. Three or more competitors to make a ring.

**THE IMPLEMENT TRIAL AT DECATUR.**—On the 21st September, inst., will commence what promises to be one of the most interesting exhibitions ever held under the auspices of our State Society.

"A fair field and no favor," offered to all manufacturers of Implements for the preparation of the soil and the planting and culture of crops.

It can hardly be necessary for us to say a word in regard to the duty of becoming an exhibitor resting upon every man who claims to represent a good machine of this class. All our intelligent farmers are wide awake and on the look-out for labor-saving machinery. They are willing and anxious to purchase; and hundreds, perhaps thousands of them will attend this Trial, that they may see the actual operation and competition which can only be seen there.

Already the note of preparation is sounded—and even the whistle, not of the "steam plow," but of the "steam spading machine" is heard as it

takes its way from the manufactory in Providence, R. I., to the theatre of its labors at Decatur. The American Horse-Nail Company of the former city are manufacturing a machine of this character, which they hope to have ready then for exhibition. It is the second they have made, and claiming to be entirely successful, they naturally turn to our prairies as its home prepared by divine hands from the beginning. May its triumph be complete.

The cultivators, one-horse and two-horse, plain and with combinations, for planting, seeding broadcast and in drills, rolling and harrowing—which our American Inventors have brought to light within the past few years, will, *of course*, be there.

We have not space for the enumeration of the entire list again nor is it necessary.

Entries should be made with the Corresponding Secretary at once, that the Board may have an opportunity to make the preparations complete and satisfactory.

Ex-President Webster, an old practical farmer of great energy, is the Superintendent, and will doubtless see that everything is done “decently and in order.” In itself and as a prelude to the Annual Fair of the Society to be held at the same place the following week; and which this Trial is designed to inaugurate. The occasion is one of great and lasting importance to this State, and indeed the whole country.

**THE COMING STATE FAIR.**—Is there a man in Illinois, whether farmer nurseryman, orchardist, mechanic, merchant, professional man, office-holder, or citizen at large, who fails to realize and acknowledge the obligation resting upon him to sustain and cherish the CAUSE OF AGRICULTURE? We are sure there is none such among the readers of the FARMER.

When we say that Illinois, proud as we are, and justly so of her coal fields, her railroads, her mines, her navigable waters, and her manufactories, is *nothing* unless she is AGRICULTURAL, we but utter a truism which is demonstrated every day in the great marts of Europe and America. And yet our vast natural resources are almost untouched! Millions of acres of lands, as fine in appearance and as fertile in fact as the sun shines upon, are still waiting the plowshare of the husbandman before yielding up their virgin harvest.

How, then, shall we best serve our country—best assist in the development of its resources—best contribute to the wealth and prosperity of the State? The answer is, stand by your county and State Agricultural and Horticultural organizations. Aid them earnestly and in good faith to accom-

plish the work before them. Attend the fairs and take your families with you. If you have an article of growth or mechanism or art worthy of exhibition, take it with you. Identify yourself with every effort to elevate labor and educate the mind of the country in all that pertains to Agriculture, Manufactures, the Mechanic and Household Arts.

The coming Fair of our State Society at Decatur, demands even more at the hands of our people than is ordinarily accorded to such an occasion.

There was no Fair in this State last year, there will be none in the neighboring States of Wisconsin and Missouri this year. Within the past two years there have been large additions to our population. Strangers, hundreds and thousands, will be with us. Let us meet then and give them a hearty welcome. Let us meet each other and exchange congratulations, as in days gone by, determined to have a good time, and to do our share towards making the Fair of '63 memorable in the agricultural history of the State.

**THE LANE REGISTER.**—This is a new paper just started at that enterprising town called Lane, in Ogle county. From present appearances it bids fair to be among the most wide awake of our exchanges; is looking after the local interests of the county, and by it we are kept posted in regard to the weather and crops in that part of the State.

Now neighbor Otis there is some hundred or two miles of fence grown from cuttings of the white willow in your county, and some of it a few miles south of your village. Cannot you take a short trip southward and give us a report of the condition and prospects of this new style of fence? We think you will be pleased to see the prairie farms belted with these living fences. Please tell us if the farmers continue as well pleased with them as formerly, and if they have been extended the past season. Do the worms and caterpillars damage them to any extent?

### Drying Hops.

A “Young Hop-Grower” wishes to know how many square feet of drying room he should have for three acres of hops, how near the pipe should be the drying floor, if the hops can be dried evenly, and the best kind of press.

As I have three acres of hops, I will contribute my experience. My dry house is 28 by 30 feet. I use one half for drying, the other for storing. The drying floor is fifteen by twenty feet. I use two stoves and pipe running around and connecting in the center of one side: pipes about six feet below the drying floor. I find no trouble in drying them



all at once, (or about 150 bushels in eight hours.) I find the Independent Press best, as follows: Two bed-pieces or sills, 8x10 inches, 6 feet long; two posts, 8x16 inches, 8 feet long. The posts and sills are joined together and bolted with two bolts. This will form the bottom and sides. The press beam 16x16 inches is tenanted with two tenants in the posts 5½ feet from the top of the sills, with one screw through the center of the beam, four feet long, worked from the top or in the second floor. The bales from this are four and a half feet long, twenty inches wide, two feet thick.—C. W. HIGBY, in *Rural New Yorker*.

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State Fair---Annual Exhibition 1963.

THE EXECUTIVE COMMITTEE are gratified in being able to announce to the people of the Northwest that the general arrangements for holding the Annual Exhibition have never been more entirely complete and satisfactory than at present. The central and accessible location—the beauty and convenience of the grounds for both Fair and camping purposes—the local pride and energy of the citizens of Macon county, who are erecting buildings and fixtures of tasteful and permanent character—the liberality and hearty co-operation of railroad companies throughout the State—together with the interest felt and manifested on all hands in the improvement of labor-saving machinery, modes of farm culture, and stock—all combine to give assurance that this Fair will be successful, not only in attracting large numbers of our people to witness and engage in its competitions, but eminently so in point of substantial usefulness to the cause of AGRICULTURE, HORTICULTURE, and the MECHANIC and HOUSEHOLD ARTS.

THE FIELD TRIAL  
—OF—  
PLOWS, CULTIVATORS, HARROWS, DITCHING MACHINES, &C.,

Will commence near Decatur on Monday, Sept. 21st, the week preceding the Fair. Manufacturers will confer a favor and enable the Board to make the best possible preparations for the Trial, by notifying the Corresponding Secretary as early as possible of their intention to compete.

WOOL GROWERS' CONVENTION.  
It is thought best by many friends that a wool GROWERS' CONVENTION be held during the Fair—the precise time to be announced in the papers and programme of the day, after consultation among those representing this particular interest.

EVENING MEETINGS.  
The Society's Tent will be erected on the Public Square in the city for the accommodation of such Convention and Farmers' Meetings for discussion.

TIME FOR ENTRIES.  
Entries for the Fair may be made at any time on or before Tuesday, Sept. 29th.  
Entries for the Trial of Implements may be made at any time before Tuesday, Sept. 15th.  
Premium Lists containing the Rules and Regulations will be sent to all applicants.



CANE MILLS.

“CLARK SORGO MACHINE CO.,”

122 Main St., Cincinnati, O.

WM. H. CLARK, Pres.t.

H. NORTON, Sec.

We offer to the public seven different series of mills, embodying in their construction the best seven improvements prior to 1863. Our New series, “THE VICTOR,” for 1863, is upon an entirely new plan of construction, combining the experience of years with the suggestions of hundreds of the best operators, and we feel a,sured will accomplish more with less power than any other power than any other before the public.

SEND FOR “SORGO HAND BOOK.”

COOK’S SUGAR EVAPORATOR.

Speed.	Has taken the First Premium wherever exhibited, including twenty-five National and State Fairs.
Durability.	Is the most economical in use, is the cheapest (pan) in first cost, square surface considered, makes better syrup and more of it in a day than any other ever devised. No <i>Refinery</i> needed.
Execution.	Cost of evaporation by Gates Steam Pan by Mr Gates’ estimate—3.1 cents per gallon. Cost by Cook’s Plantation Pan, only 2 cents per gallon.
Convenience.	Other Manufacturers acknowledge its excellence.
Capacity.	“It is the only one that has obtained any notoriety for making syrup.”— <i>C. &amp; J. Cooper Mt. Vernon, O.</i>
Cheapness.	Send in orders early, as hundreds were disappointed last fall. “Sorgo Hand Book sent free on application.
Excellence.	

BLYMYRE, BATES & DAY.

MANSFIELD, O.

H H. KOON, Springfield, Ill.,

June 1, 1863.

*Agenti.*

## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

 Correspondents will please be particular to give the name of the post office, county and State.

 Specimen numbers will be sent gratis, upon application.

 Address

BAILHACHE & BAKER,  
Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

## Advertisements.

**BUY THE BEST!—**

**IT IS THE CHEAPEST IN THE END!**



The Railway Horse Power which took the

**FIRST PREMIUM**

AT THE

## New York State Fairs of 1861 & 1862.

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others! This, they believe, cannot be said of any other Power exhibited at an equal number of Fairs.

**COMBINED THRESHERS AND CLEANERS,**

**Threshers, Separators, Wood Saws, &c.**

All of the best in market.

These Powers produce more power, with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of horses, being only about  $1\frac{3}{4}$  miles per hour when doing a good fair business, which is about 300 to 500 bushels of oats per day, or half that quantity of wheat or rye.

The Thresher and Cleaner runs still and easy, separates the grain perfectly clean from the straw, cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business, without waste or clogging, than any other two horse cleaner before the public.

For price and description send for circular, and satisfy yourself before purchasing. Address

R. & M. HARDER,

je2m\*

Cobleskill, Schoharie Co., N. Y.

## Sanford & Mallory's Flax and Hemp Machines.

These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address

NELSON STILLMAN,  
General Agent, Chicago, Ill.

P. O. Box 5823.

May 1'63. ly

## MA TESE JACKS.

TWO just imported from the Island of Malta, selected with great care for breeding purposes. They are three years old, 14 and 15½ hands high.

Address,

S. B. CARUANA,

71 Pine street.

E. C. ESTES,

73 Hudson street.

New York, May 14.1m

## EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old,  
three to five inches, \$5.00

NORWAY SPRUCE, three years  
old, six to nine inches, \$8.00

SCOTCH PINE, two years old,  
three to five inches, \$7.00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARKITE, &c., &c.,  
of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the best varieties for the West.

A large stock of RED DUTCH CURRANTS, the best for market, two to three years old, at half the usual rates.

STANDARD AND DWARF PEARS, of well tested varieties, together with a good assortment of Fruit and Ornamental Trees, &c., &c.

Send for Catalogue.

ROBT. DOUGLAS.

WAUKEGAN, ILL.

tf

## TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD, \$55 per 1,000.

A few thousand of bearing age, of large size at  
\$75 per 1,000.

These will produce a good crop the second year.

HARTFORD PROLIFIC, \$10 per 1,00, or  
ten for a dollar.

REBECCA, \$10 per 100.

DIANA, \$10 per 100

The above will be well packed,  
to go any distance.

TERMS—Cash, or approved bank paper of short date.

JAMES SMITH.

DES MOINES IOWA, Jan. 1, 1863.

## GENUINE TREE COTTON SEED.

A limited quantity of the above seed can now be obtained if applied for soon, of

**EDWARD TATNA L, Jr.,**

Brandywine Nurseries,

WILMINGTON, - DELAWARE.

This seed was procured at considerable expense by William Ferris, of the above city, from the mountain regions of South America, having been conveyed thence by mule, "seven days journey" to Guayaquil, where this gentleman resided nearly three years, and made himself acquainted with the fact that this cotton thrives, and is cultivated on the elevated lands of the Andes, of which it is a native. His object was to introduce it into our Northern and Western States, believing if it would stand their climate (and where it now grows it is frequently covered with snow and ice) it would prove a source of great interest and profit to the people of those States.

As seed represented to be that of the tree cotton has been palmed off on the public during the past year, this is warranted to be the genuine article and will be forwarded by mail free of postage at the following rates remitted in current funds with the order:

25 for \$1; 60 for \$2; 110 for \$3; 200 for \$5; 500 for \$10.

Clubs of 5 or 10 supplied at the latter rates if sent under one envelope. Should be planted by 1st or 10th of May. In sending orders give the Post Office County and State.

Apr 2m

## WANTED. KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$50. Weight 45 pound. Freight from 50 cents to \$1.50. Send for circular and samples, (send stamps.)

BRANSON & ELLIOT,  
General Agents,  
120 Lake Street, Chicago, Ill.

Apr '63 ly

## H O V E Y ' S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Nov 1862 No. 194, Lake st., Chicago Ill.

## BLOOMINGTON NURSERY BLOOMINGTON, ILLINOIS.

Eighty Acres Fruit and Ornamental Trees

200 NAMED SORTS TULIPS. ALSO HYACINTHS, Crocus, and a general assortment of Bulbs and Flower Roots for Fall and Spring planting. Nursery stock. Evergreens. Greenhouse and garden plants—all at wholesale and retail at lowest cash rates.



For particulars see Catalogues or address subscriber F. K. PHOENIX.

Bloomington, Ill., Aug. 1, 1859.

## Dunlap's Nursery.

This nursery has a good stock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

Address, M. L. DUNLAP,  
Champaign.

March 1, 1863.tf

## GEORGE S. THOMPSON,

Late of Com. Gen.'s Office,

Attorney for U. S. Military Claims,

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House of Messrs. N. H. Ridgely & Co.

Having had much experience in prosecuting claims against the United States, particular attention is given to Recruiting Bills made by officers and men of volunteer companies and regiments, for subsisting, and, collecting, organizing and transporting troops prior to muster into service: Back Pay due Resigned Officers; Back Pay due Discharged Soldiers; Pay due Deceased Officers, their Widows or Heirs; Bounty and Pay due Heirs of Deceased Soldiers; Pensions due Deceased Soldiers' Widows and Minor Heirs; Pensions due Invalid Soldiers; Pay for Horses lost, killed or died in the United States' service; All Claims growing out of the Present War.

Pensions collected semi-annually, from the Agent of the United States at Springfield.

Any kind of claims for service, or for property destroyed, stores or property sold officers of the United States.

Would respectfully refer to Messrs. John Williams & Co., Bankers; J. C. Bunn, Esq., Banker; Capt. C. B. Watson, U. S. Mustering Officer; Lieut. Geo. W. Hill, U. S. Mustering Officer; Major C. S. Hempstead, U. S. Paymaster; Capt. Ninan W. Edwards, U. S. Commissary; Captain W. H. Bailhache, U. S. Quartermaster; Col. P. Morrison, 8th U. S. Infantry, Superintendent Recruiting for Regiments of Illinois, Springfield, Ill. Major J. G. Fonda, 12th Ill. Cavalry, Commandant at Camp Butler.

August, 1862.tf



## FAIRBANKS' STANDARD S C A L E S OF ALL KINDS.

Also, Warehouse Trucks, Letter Presses, &c.

**FAIRBANKS, GREENLEAF & CO.**  
172 LAKE STREET, CHICAGO,

Sold in Springfield by

E. B. PEASE.  
Be careful and buy only the genuine. June 1-y

# The Illinois Farmer,

A MONTHLY JOURNAL OF

## AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

**TERMS IN ADVANCE.**—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside.

The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

Specimens numbers sent free on application.

Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign Illinois.

All business letters are to be directed to the publishers, Springfield.

### TERMS OF ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	8	\$20	\$35	\$50
Half a page or one ".....	5	12	20	30
One fourth page or half column..	3	7	12	18
One eighth or one fourth ".....	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00
Ten cents a line for less than a square each insertion.				

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

Implements and seeds to be tested should be sent direct to the Editor, at his residence, Champaign.

We have put the price of advertising within reach of all. It will enable those who like to freely advertise their goods, to do so at a cheap rate.

Terms, cash. Yearly advertisers will pay semi-annually, and all transient advertisements must be accompanied with the cash to insure insertion.

BAILHACHE & BAKER, Publishers,  
Springfield, Ills.

## THE ILLINOIS STATE JOURNAL

IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

### TERMS:

One copy one year.....	\$2 09
Three copies one year.....	5 00
Six " ".....	7 50
Ten " ".....	12 00
Twenty " ".....	20 00

Payable always in advance. Persons sending clubs of ten upwards shall be entitled to an extra copy.

Address BAILHACHE & BAKER,  
Springfield, Illinois.

## APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest possible rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
lsq3m Pulaski, Oswego co., N. Y.

## A GOOD INVESTMENT.

ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

GENERAL AGRICULTURE,

STOCK RAISING,

HORTICULTURE and POMOLOGY,

And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

### LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

### FORM OF PAPER.

The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

### CONTENTS.

About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

### A NEW VOLUME

Commencing January 1st, 1863, and the present time affords the best time to form clubs for the year.

One copy one year.....\$2 00

Two copies one year.....3 00

Larger clubs furnished at liberal rates, or premiums given where clubs of six or more are sent at \$1 50 each.

Specimen copies and show bills sent to any one who desires them for examination or the purpose of raising a club.

For sale by news dealers generally.

For samples or other information concerning the paper, address

EMERY & CO., Chicago, Ill.



# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., OCT., 1863.

NO. 10.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,


PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

 EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### October.

This year, at least, October comes to us draped in the brown and russet of Autumn. For a month since the white mantle of frost was spread over the land, sweeping the tender plants as with fire. Corn, sorghum, tobacco, cotton, potatoes, buckwheat, vines and garden vegetables all suffered more or less from its premature visitation. The forest has not waited for October to loosen the footstalks of its leafy garniture, but for weeks past has been playing its role of changes, determined that this year at least, that there shall be a wide gap between summer and winter.

We have had a remarkable season, throughout the land—in some places

too wet, in others too dry, while some portions have had just an even supply of rain, and are rejoicing in bounteous crops. The section hereabouts has been a severe sufferer by drouth and frost, and we doubt if the corn crop will average ten bushels to the acre of a medium quality; a first rate article is out of the question.

We have nine acres of potatoes, thoroughly cultivated on new land, and the crop will be less than two hundred bushels, not fifty of which will be marketable. But why complain? the farmer meets no more accidents in his business than other classes of business men. Last year we had an average crop of sixty bushels of corn to the acre, this year ten, this gives us thirty-five for the two years, with which we should be content.

We regret most the loss of sorghum, cotton and tobacco, as they are comparatively new staples for our State, and we fear the disaster will discourage their culture.

Egypt comes up with large complaint of drouth, which appears to be the rule, not the exception. Our friends there-away will have to give more attention to fall plowing, and put in their crops a month earlier, so as to have them growing during their long rainy season of their spring months. The same advice will apply in part to the central part of the State. Our northern farm.

ers already look to this and require no jogging up on this point, for already thousands of acres have come under the influence of the steel clipper.

The light crops are timely for light hands, and we shall be enabled to close up the farm work in good season.

The dry season has taught us the value of autumn for setting of trees, and we should not let it pass without attention. Plow the land deeply and bank up the tree with the spade at least a foot high, and the frost will not disturb them; they will be ready to grow in the spring, and become established before the summer drouth, that so often proves disastrous to our newly set trees. Small plants, such as roses, raspberries, etc., had better be "heeled in" until spring. We are now preparing the land for an addition of thirty acres to our orchard, and plow it into lands of twenty feet; by back-furrowing, this will give good surface drainage, and slightly raise the ground where the trees will stand; in fact, the trees when set will be nearly on the original surface. One or two plowings towards the trees in the succeeding years will complete the drainage as the trees advance in size.

---

#### The White Willow for Fencing.

It has become a well settled axiom, that all new discoveries in agriculture require time to adopt them into general use. It has required nearly twenty years to learn how, (that is for the farmer in general,) to make a fence of the Osage orange, and even now more than half the attempts are failures. Because thousands of farmers fail to grow fruit, is that any reason why no fruit should be grown?

In no one thing have our farmer

made less progress than in cheap and durable fences. In a country where timber is plenty, the old Virginia fence is yet the most popular, and to this day our groves bear testimony to the wasteful uses of timber for this kind of enclosure. There is no part of the West where the farmers can afford to use up their timber in so wasteful a manner. The post and board fence is less objectionable, only because it requires less of the raw material. Live fences must take the place of dead ones as a general thing, not only for their cheapness but for the effect they will have on the climate and in the production of better crops.

For a substantial hedge the Osage orange stands at the head of the list, but this plant will only thrive on well drained land. It is therefore of importance that we seek some other tree that will adapt itself to our great variety of soils and situations. Thus far the white willow gives promise of being the most valuable for this purpose. It is at home in the woodland swamp, in the prairie slough, and on the high rolling land, where alone can grow the Osage. On the very dry land its growth is not so rapid as in the low land, yet it is no less hardy. Cuttings put down early in the spring, in all kinds of soil will grow, and need not fail. The tree does not sucker, but can be easily trained into a good fence. To know how to do this, is of no small importance. There is a general impression among people that willow cuttings, cut at any season after the leaves have fallen will grow if set at almost any time in the spring, but this is not the case.

The demand for live fences is greater than at any former period, and if Osage plants could be had, millions of them

would be set out the next season. It is not probable that any great amount of seed of the Osage can be had before the spring of 1865, and it will be another year before the plants will be ready to set, and then they can only be used on dry land. In two years the willow will have a good start, and in three to four years more make a good fence. Aside from the fence the willow has other values—shelter from high winds, and in the division of estates and changing of fences which is so often occurring, the willow fence is very valuable for the number of cords of wood that it will furnish. It is one of those improvements that is steadily adding to its own value.

We look upon the discovery that some of our forest trees are adapted to the making of live fences as a new era in agricultural progress, that will make rural pursuits more a pleasure and certainly add to their profits. The heavy drain on the farmers' resources constantly made by our system of dead fences is the great drawback to other improvements, and one of telling effect against the prairies, and from which, there has thus far, been no escape, but we trust that this old man of the sea will be thrown off or exchanged for lesser burdens.

We must have shelter from the prairie winds, not only for orcharding, but for our field crops, and to accomplish this we must plant belts of timber in addition to our fences, we must use some material that will answer both purposes. These elements have all been demonstrated by the white willow in an eminent degree. It is then a loss of time to wait for the end of the war to grow the Osage.

We would not have our people lose

sight of the Osage, by any means, for along roadside, the garden and orchard, that need protection from pigs, boys and poaching men, it is of great value and cannot well be dispensed with.

#### PREPARATION FOR THE FENCE.

It is necessary to success that the place intended to set the plants should be fitted during the autumn. A strip at least a rod in width, should be plowed deeply, by either trench plowing or subsoiling. If but a narrow strip is plowed it is too apt to dry out, and kill the plants, as young willow plants cannot stand a drouth to good advantage. This season we have seen them die after attaining two feet, and large numbers at six to ten inches. The ground should therefore be prepared to the depth of a foot, be thoroughly harrowed and rolled, so as to leave it in fine tilth. We need not tell the farmer that to grow a cutting, the soil must be finely comminuted, yet it will do to oft remind him of the fact, as it is too often overlooked in the preparation of the soil for this purpose. It must be borne in mind that the preparation of the soil must be completed in autumn, as it is not to be disturbed in the spring on no account, for so soon as the frost is out sufficiently to thrust down the cutting in the soft soil, it must be done. If you delay until the soil is settled, the work cannot be so well or so easily done. The willow is the first tree to put out its vernal growth; and to give it a good start must have the advantage of the moisture of the soil. If this is attended to, and the soil in good order, the plant will become so well established that no subsequent drouth can do more than to check its growth.

#### THE CUTTINGS.

These can be taken off from the fall

of the leaf until the time for setting, but not at any time you choose within this period, for when the wood is frozen the work of cutting must be suspended. We have no doubt that a large share of the loss of cuttings the past season came of cutting when the wood was frozen. The bark in spots turns black, and the vigor of the cutting is lost. All orchardists and nurserymen know the bad effect of pruning when the wood is frozen in winter, and need not be more surprised at the failure of cuttings, than at the failure of scions cut in a frozen state. We think this point has been entirely overlooked during the past season. We have no doubt that the very best time to take off the cuttings is late in the winter, on warm days; when taken off at this time, if exposed to some extent, so as to become considerably shrivelled, they will recover and make a vigorous growth, but if cut in a frosted state, as we said before, they turn black in spots, and the cutting after throwing out feeble roots, yields to the first adverse condition of the soil.

SIZE AND AGE OF CUTTINGS.

Two years old wood is the best, and should be used on all occasions of setting in grass land, but cuttings of all sizes can be made to grow if carefully attended to, as before directed, though we would recommend that none less than the third of an inch in diameter be used in the fence row, and an inch is still better. We have always advised our readers to sort out their cuttings, making two or three sizes, and to set each size by itself, so that their plants will make a uniform growth, the large cuttings being the most vigorous, we need not say they are the most valuable.

Now that good cuttings can be had

at reasonable rates, we would not take the tips as a gift.

CUTTINGS FROM THE EAST.

During the past winter we saw numerous samples of willow cuttings from the East, but few of them were the genuine white willow. One of our neighbors purchased eighty dollars worth of a lot from the *powder district* of Pennsylvania, not one of which is genuine. That there is genuine white willow at the East we are well aware, but the temptation to send out all sorts of willow cuttings last winter was too great to be withstood, and hence many of our dealers were imposed upon. As most of the cuttings are dead, little has been done aside from the loss of money and time.

DISTANCE APART.

We still adhere to a foot as the proper distance to set the cuttings, and these in a single line, requiring five thousand and three hundred to the mile.

PROTECTION.

All farm animals will browse the willow, and the consequence is that the young fence must be protected from stock for at least three years, when if the growth is good the plants will be out of the way, and the trimming of the lower branches will do no harm. Osage must be protected in like manner for some length of time.

THE COST PER MILE.

5,300 cuttings, \$6 per M.....	\$32 00
Preparing land.....	5 00
Setting.....	2 00
Cultivating and hoeing.....	7 00
Cutting back 2d year.....	2 00
Cultivating 2d year.....	3 00
	<hr/>
	\$51 00

This makes the cost sixteen cents a rod, with cuttings at six dollars, the present price of cuttings of half inch and upwards, ten to twelve inches long. The best of the cuttings from the fence

thus cut back will do to set new fence, and the saving in making another mile the second spring will be reduced to less than eight cents the rod. When we take into consideration that a fence can be grown in five or six years at so small cost, it is the worst of economy to put it off to another year.

#### COST OF OSAGE.

1,000 plants, \$6 per thousand.....	\$66 00
Culture same as willow.....	19 00
Total.....	\$85 00

At a cost of twenty-seven cents a rod. But this is upon the hypothesis that the land is all well drained. In ordinary hedges we see no need of cutting back either the willow or the Osage, but both can be thus treated at about the same cost, though the willow will not require cutting more than once in two years, and if the cuttings are of any value this will be in its favor.

The more we examine into the value of the willow fence the more are we in its favor, of which we intend to show living facts.

Hedges are sometimes cut down on the division of estates, and the changing of the boundary of a field, in that case our willow fence will be worth one or two dollars a rod beyond the cost of removal, while the Osage will be of no value, and will cost largely for its destruction.

We cannot close this already long article without urging the necessity of planting of live fences, as the first dogma in the creed to profitable farming. We have much more to say in regard to timber planting for fuel and other farm uses, but must forbear at this time.

#### The Difference.

As soon as a dead fence is made, that

is rail, board, wire or any material that has not life, it begins to go down; but when a hedge is set it is constantly becoming better.

## Poetry.

From Field Notes.

### Lines

*Accompanying a Bouquet of Seed-stems and Evergreens, gathered by the road-side*

BY MRS. FRANCES D. GAGE.

Think of me, friends!

Not as of spring time flowers,  
Born to make beautiful life's sunny hours;  
Shedding their rose-light o'er  
The cultured garden,  
And wilting 'neath the storm  
That comes to harden  
These rougher plants of ours—

Think of me as you go

When autumn winds sigh low.

Among roadside blooms we christen weeds,  
Which scatter o'er the wastes of earth their seeds,  
And on whose breast the wild birds gaily feeds,  
Which cheer the weary laborer on his road,  
And help to lighten e'en the beggar's load;  
Filling the laps of children as they pass

Barefoot upon the grass,

And pause to share the beauty that is free—  
Thinking, perchance, of God, all rev'rently—  
Knowing full well "the Father" placed them there  
For all alike to share—

To lift their glowing love-tints still unfaded  
When autumn's storm-clouds brighter ones have  
shaded,

And feeble sunlight warms the wintry sky,  
And frosty winds sweep by.

Think of me, as these weeds

Answering life's humblest needs,

Cheering the lonely whom misfortune's blast  
Hath overcast;

And comforting the struggling, suffering poor  
Forever with us, ever at our door;

Not poor perchance in gold,

But poor in hearts so cold

That not a seed of charity can grow

In the chill soil that lies their lives below—

Making no wintry hours

Bright with its wayside flowers.

Think of me, as God's weeds,

Dropping the wayside seeds

Of kindly deeds,

As I pass by—

Which, *unlike* those, shall never, never die!



# Agriculture.

From the Boston Cultivator.

## Machinery in Agriculture.

The advantage, both in an individual and national point of view, which has been derived from the use of improved implements and machinery in agriculture, is seldom fully realized. Who can estimate the immense benefits which have already resulted from the use of mowing and reaping machines in this country, or state their equivalent in hand labor? It is not too much to say, that to various modern inventions in agricultural machinery, is to be attributed, in a great degree, the ability of the loyal portion of the country to sustain itself under the severe trials induced by civil war. When it became necessary to take from the industrial classes of the community nearly a million of men, to form an army of defence against traitors, the effect of that draft on the production of articles essential to our subsistence was considered with some anxiety. Some of our own people could not suppress the fear that our agricultural products could not be kept up; while our enemies abroad boldly flattered themselves, that instead of supplying foreign nations with food, as had been our custom, we should be unable to supply ourselves!

Now that those fears have proved groundless, and those prophecies false, it is proper that we should devote a moment to the consideration of the question, How, or by what means, have we been supported? There cannot be a reasonable doubt that the substitution of improved implements and machinery for the labor of the men who have left the field of agriculture for the field of battle, has, at least, prevented any diminution in the amount of our meats and breadstuffs. It would be a matter of great interest and no trifling importance, to know the number of mowing machines, reaping machines, horse-rakes, and horse-ditchforks that has been used in the loyal States the present season, as well as the number of corn-planting machines, grain-drills, broadcast sowing machines, threshing machines, etc. We do not know whether it enters into the plan of the Commissioner of Agriculture to obtain statistics of this kind or not, but that they would be valuable is obvious.

There is no part of the country where more or less of the machines named cannot be used advantageously. The demand for some of them has been increasing for several years, and during this season has been so great, that it has been difficult to buy, unless engaged sometime previously, a good mowing machine or horse-rake between the Atlantic coast and the Missouri river. But though, as before stated, labor-saving machines may be used to some extent everywhere, it is the West, especially the prairie region, that presents the greatest inducements for their use. Probably no other part of the globe, of the same extent, combines equal fertility with smoothness of surface and other facilities for the use of such machines. It is to this new region—new so far as regards cultivation—that we are mainly indebted for the vast surplus of human sustenance from which our manufacturing and commercial communities and

our armies are supplied, leaving for export quantities beyond the means of transportation. Such progress in population and production as is presented by the Northwestern States, is without a parallel.

Previous to what is known as the Black Hawk war, cultivation was almost wholly unknown in this region. A few small military posts were scattered at intervals of hundreds of miles over the country, and around the old French settlements small tracts of land were subjected to a culture little less rude than that practiced by the aborigines. In 1832, General Scott, in his expedition against Black Hawk and his warriors, carried a portion of his troops to Chicago in the first steamboat that ever landed at that place—it could not be called a town or even a village, for there were but two or three buildings except those which belonged to the fort. What a contrast compared with the northwestern metropolis of to-day, which, after an interval of only thirty years, has a hundred and fifty thousand inhabitants and is acknowledged as the greatest grain mart of the world!

The men who were engaged in subduing the Indians saw the fatness of the land, and when they returned to their homes spread abroad glowing accounts as to its advantages. From this time the settlement of the country was rapid, and the changes which have been wrought seem marvellous.

Neither the farmers of the West nor any other part of the country, have succeeded in substituting steam for animal power in cultivating their lands. Very exaggerated accounts were published a few years ago in regard to Mr. Fawkes's steam-ploughing machine. We never saw any evidence that it was likely to succeed, and it is said that Fawkes himself has finally abandoned the machine in disgust on the very field where the last trial of it took place. Ploughing, therefore, is still done by horses, mules, or oxen. But after the ground has been ploughed and got into condition for planting or sowing, machines which make a great saving of hand-labor may be used. If Indian corn is the crop to be grown, it may be planted with machines which will do the work at the rate of from twelve to twenty acres a day; and even the cultivation of the crop may be chiefly done by a machine on which a man rides over the field, hoeing ten to fifteen acres a day. If wheat or other small grain is to be sown, it is put in by machines which sow either in drills or broadcast—the quantity of seed to be sown and its distribution regulated with great exactness—and any person who can guide a horse or a pair of horses, can perform all the manual labor required in the operation. Nothing more is usually required till the harvest, when the grain is cut either with reaping machines or heading machines. Some of the former are self-raking—that is, the grain is raked off by a self-acting apparatus—the driver of the horses, as he sits on the machine, performing all the manual labor required in its operation. Some machines have an apparatus for binding the grain attached to them. The practical utility of these *binders* has not yet been fully demonstrated, though there does not appear to be any insuperable obstacle to their success. The grain is thrashed by machines, either from shocks in the field, or from stacks, or in barns, as expediency or convenience may dictate. In either case machines may be used which thresh and

know the grain and deliver it in bags at one operation.

All these machines are of comparatively modern invention, the oldest scarcely dating back thirty years. The threshing machine of Messrs. Pitts may be considered the first *portable* machine by which threshing and cleaning could be done successfully at one operation. The writer of this article was one of a committee appointed to examine this machine when it was first brought before the public, at Wintorop, Maine, in 1832. As might be supposed, it was then in an imperfect state to what it is under the improvements which its intelligent inventors have added. Several years since the manufacture of this machine was established in Western New York. One of the leading wheat growers of that section, at a public meeting, gave as his opinion, that in ten years this machine had saved to the State of New York a million of dollars. Of late years this machine has been manufactured at various points in the West, and is now met with in almost every part of that fertile region.

The successful use of mowing machines can hardly be said to embrace fifteen years. In 1848, Hetchum made the first public exhibition of his machine before the New York State Agricultural Society at Buffalo. This was the pioneer *mowing* machine. Reaping machines have been in use in this country a little longer. McCormick and Hussey led off with these. Occasionally their machines are tried for grass, but not with much success. It was not till the International Exhibition at London, in 1851, that the use of reaping machines may be said to have been fairly initiated. The triumph of McCormick at that Exhibition is well known. On the subsequent history of reaping and other agricultural machines, we have not space to enlarge.

### Sugar and Molasses in the West.

Mr. Sanford Howard, one of the editors of the Boston Cultivator, in a late visit to the west, writes his paper as follows:

CHICAGO, June 30, 1863.

Among the various enterprises of which the great West has lately been the theatre, few are of more importance in reference to the welfare of the people, than the production of a substitute for the sugar and molasses which was formerly obtained from the South. The first trials of the Chinese sugar cane were made here in 1855; but it was not till the following year that it was cultivated to a sufficient extent to afford much of a test as to the adaptation of the plant to this section, or as to its capability for producing sirup or sugar. On the breaking out of the war, the usual source of supply for these articles was cut off by the obstructions which the rebels threw in the way of navigating the Mississippi river, and the general non-intercourse with the lower country. Whatever might have been done under ordinary circumstances, the people now felt the necessity of turning their attention to the production of an article which was regarded as indispensable. In reference to this, it seems almost like a special Providence that the Chinese sugar cane should have been introduced at the time it was. Its culture was engaged in extensively in 1861, and with no better facilities

than those with which every farm house is provided, a large quantity of sirup was produced that year—the quality, of course, varying according to the skill of the makers, and other causes, but on the whole so good that it was used in the families of farmers in place of the Southern molasses. Last year, a still larger extent of land was planted with the cane, and the quantity of sirup increased—Illinois producing not less than 2,000,000 of gallons, and Iowa 3,000,000.

The capacity of the country to produce sirup to any extent, has thus been demonstrated. But to make a suitable article for export or for sale in market, it was necessary that it should be uniformly of good quality, and this cannot at present be attained in ordinary household manufacture, owing to various causes—as the variation in the quality of the cane grown on different soils, the quality of the juice according to the stage in which the cane is cut, the care and skill applied in preparing and grinding the cane, the boiling, and the general management of the juice, etc. This important desideratum has, however, been attained to a good degree by the refinement of the sirup.

In company with Mr. Emery, of the Prairie Farmer, I have lately visited the Chicago Sugar Refinery, which is under the superintendence of W. H. Belcher, Esq. In the winter of 1861–2, Mr. B. made some experiments in regard to refining the sorghum or Chinese cane sirup. The results were so satisfactory, that in the autumn of 1862 and the following winter, Mr. B. refined about 6000 gallons. Samples of the unrefined and of the refined sirup have been shown me. The former is just in the condition in which it is made at the farm houses, and presents, as before intimated, great variation in quality. A few samples are light colored, clear, and of good flavor; but most of them are dark, with more or less impurities, and with various disagreeable flavors. The best of the refined is fully equal to any sirup I ever tasted, not excepting Stewart's best refined. The price of the unrefined has been from 30 to 45 cents per gallon; of the refined from 45 to 60 cents. There is an average loss, by measure, in the process of refining, of from 10 to 12 per cent.

The company above mentioned is now preparing to refine 30,000 gallons of sirup next fall and winter. To this end the company has planted 400 acres in cane on its own account. One inducement to do this has been the difficulty of obtaining large quantities of sirup of uniform quality. Mr. Belcher hopes by having a large quantity of cane under his own supervision, that he can produce sirup of such quality and in such quantity as will enable him to present it in market as an article of commerce, meeting a ready sale. Mr. B. purposes to grind the cane and boil down the juice about one-half, on the field; then barrel it and take it to the refinery, where the process will be completed.

There are several varieties of the cane, known under the names Chinese, African, (or Imphee,) Otaheitian, etc. Mr. Belcher is cultivating ten varieties this season, and will probably be able, when the juice has been made into sirup, to give some more positive information than has hitherto been obtained in regard to the merits of the different kinds. It seems probable that they all belong to a single species—as they do not differ more than the different varieties of Indian corn—and all readily mix with each other, and also with

room corn—the latter mixture being very prejudicial to the making of good sirup.

I have spoken thus far of the sorghum or Chinese cane in reference to making sirup. Sugar can be made from it—or at least from the best sirup—but the process of making a good article is attended with some difficulties which render its production less profitable than sirup. But Mr. Belcher has strong hopes of making sugar advantageously from the beet. Some trials in reference to this were made last fall, and Mr. B. has shown me a sample of beet sugar which he made in a blacksmith's shop, of excellent grain and good flavor, though, not having been refined, of dark color. He informs me that within one hundred miles of Chicago, there are 300 acres of ground in beets, besides one hundred acres in small patches, the sole object in their cultivation being the manufacture of sugar. Professor Mot, a Frenchman, who made some experiments in beet sugar manufacture in Ohio, last year, is here, endeavoring to extend the cultivation of the beet and the making of sugar from it. A professional beet sugar manufacturer from Paris (whose name I will not attempt to write, having only heard it,) is also here on a reconnoissance. Professor Mot told me, in an interview I have just had with him, that most of the soil here is better for the beet than any in France, and that the root grown here is considerably richer in saccharine matter.

On the whole, the problem whether the West can supply its population with sugar and molasses (or something better than molasses,) and perhaps have a surplus for exportation, and make the business profitable, is rapidly approaching a solution.

### Reasons Why Horses do not Breathe Through their Mouths!

The soft palate, as it is technically called, *velum palati*, is a sort of curtain affixed to the roof of the mouth, in the region of the palatine arch; it has a free edge which rests upon the epiglottis. It slants in a posterior direction, so that anything in the shape of food coming from the mouth, raises and pushes it backward; but anything coming from the œsophagus or trachea, pushes it forward and downward, closes it, and thus prevents all egress. So that air is expired and respired through the nasal outlet, and all matter vomited from the stomach must also be ejected through the nostrils. In the act of coughing, however, which is a spasmodic action, the air returns in body and with force sufficient to raise *velum palati*, so that a passage through the mouth is, at the moment, secured.

The mechanism of the soft palate is as follows: Its composition is nearly the same as that of the hard palate, yet it abounds more in glandular substance and muscular fibre; by means of the levator palati, its substance is raised. On the lateral and internal portion of the membrane we find bundles of muscular fibres, constituting a pair of muscles known as *depressors*, which aid in retaining the palate in its place, viz., on the epiglottis. From the above brief remarks the reader will perceive that it is not natural for a horse to breathe through his mouth.

## Horticulture.

### A Productive Kitchen Garden.

When the Tremont house in this city was opened, in 1855, the proprietors found it difficult to obtain a supply of vegetables and fruits, especially in the early part of the season. They were forced, even, to send to Cincinnati for these articles, the cost of which, when they reached Chicago, was of course great, though they were more or less injured in quality. To obviate this difficulty, Mr. George W. Gage, one of the proprietors of the house, purchased fifty acres of land eight miles south of the city, for the purpose of cultivating, chiefly, vegetables and the smaller fruits.

The land was then unbroken prairie. A ridge near the centre of the lot, comprising, perhaps, ten acres, is of a loose, sandy character; the rest is mostly a black soil, naturally of such tenacity that after having been wet it baked so hard as to bid defiance to the ordinary means of tillage. Under these circumstances Mr. Gage was obliged to confine his cultivation to the lighter soil, from which, by the aid of manure, he obtained early and abundant crops, except in very dry seasons. The flat land was generally so wet in the spring that nothing could be done with it, and, as before intimated, when it became dry, it was too hard.

Mr. Gage and his superintendent, Mr. Emery, (formerly of Malden, Massachusetts,) determined to see what effect drainage would have on this land, and in the fall of 1858 commenced with a few brush drains. The effect of these was so favorable that it was resolved to drain all the heavy land. In the fall of 1859, twenty acres were drained with the mole plough, three feet deep, at intervals of forty feet. The effect of the drains was seen to some extent the succeeding season; but their full benefit was not realized till the second season. The change which has now been effected, might astonish persons who had seen nothing of the kind before. The land which formerly baked hard, is now so mellow that onions are grown on it. I have not seen more promising crops of this esculent than are now growing on what was formerly some of the heaviest of Mr. Gage's land. In fact a yield of 800 bushels to the acre was obtained here last year, and there is every prospect that the present crop will equal or surpass the former. They usually bring seventy-five cents a bushel.

The drains which were first made continue to operate well, and I see no reason why they may not do so for a long time. The cavities made by the mole preserve their original shape, and discharge water freely whenever there is a surplus in the soil. It is obvious, however, that this system can only be successful on tenacious soils. Where there is sand it will drop into the cavities and sooner or later close them up. Mr. Gage says he has not lost a crop, or had one injured from wet or drought, since the drains were made. The effect of the drains in preventing the soil from baking, is easily explained. Before the drains were made the rain water remained so long on the surface that the soil was puddled, and it settled into a compact mass when the water evaporated. After the drains got into full operation, they kept the soil so open

that the water did not remain on the surface to produce the former compactness.

In the fall of 1862, twenty acres more were drained with the mole plough. The cost of the mole drains was but *ten cents a rod*; so that if it should be necessary to renew them or to make others, after the lapse of five or six years, the expense will not be formidable. The fall on most of this land is very slight, in some instances only an inch to the rod; yet it is sufficient. The drains discharge into a deep gutter, which was made in building a road that runs parallel to the field.

Reference was made above to the use of manure on the sandy soil. The manure has been obtained from hogs kept on the place, and from the horses here employed. A large quantity of offal comes from the tables of the Tremont House, with which Mr. Gage feeds his hogs. He also buys that of the Briggs House, another large hotel in the city—paying \$200 a year for what is obtained at both houses. He sells seventy-five fat hogs annually, besides many young pigs. The first hogs were a selection comprising the best to be had in the vicinity. These were crossed with Mr. Wentworth's fine Suffolks, and the offspring again crossed with the same breed. A hundred selected shoters of this grade which are to take the place of the old stock, are such as would be hard to beat for thriftiness and good points.

From what has been said it will appear that only about thirty acres of Mr. Gage's land has as yet been brought into a fully productive state, twenty acres having been drained last fall. It would therefore be wrong to take any returns yet made as representing the capabilities of the fifty acres. I may state, however, that the receipts for the year ending April 1, 1863, amounted to \$5,720; that the receipts from April first, 1863, to July first—three months—were \$1,773.68. Of this amount \$800 were received for strawberries from an acre and a half of ground, and the crop is not all picked. They are sold *in the hull* at \$4 per bushel. They are chiefly Wilson's seedling, which is said to be the most profitable variety for this section. Certainly the yield here and at several other places in the State where I have seen it, is very great.

The appearance of all the crops indicates that the aggregate returns from the land this year will considerably exceed those of any former year. Mr. Gage says he will send me, at the close of the year, a detailed statement of the receipts, with some remarks on the relative profits of different crops. The general management of the superintendent, Mr. Emery, is highly creditable. He had a long experience in "market gardening" before he left Massachusetts, and in his new field of operations he has evinced judgment and close observation by adapting his plans and practice to the surrounding circumstances. Some points in his management deserve mention. It has been a desideratum to obtain early melons of the cantaloupe family, for which the sandy ridge of land before mentioned is well adapted. But without protection the plants were so much injured by winds that they would not thrive. Mr. Emery has therefore adopted the plan of putting the melons between rows of peas. The peas are planted for an early crop and are *stuck* with brush. Spaces of five or six feet are left between the peas, at proper intervals, for the melons, which are transplanted from hot beds. The pea-vines together

with the sticks on which they ran, are allowed to remain after the peas are gathered, and by this means the force of the wind is so broken that the melons grow finely and bear early and abundantly.

Mr. Emery has been very successful in the culture of celery, which thrives admirably on the black heavy soil after it has been drained. His mode of keeping it through the winter is to pack it in the sandy ridge, before described. A furrow six or seven inches deep is first made, along the side of which the celery plants are placed in a single row as closely as they can stand. A little earth is then thrown against them, and another row of celery laid as before. When the crop has thus been secured, a layer of prairie hay is spread over the bed, additional layers being applied as the coldness of the weather requires, just enough being given to prevent the celery from freezing. From this bed it is taken for market, daily, in the finest condition. The system probably would not answer except in a porous soil.

Mr. Gage's operations must be regarded as of no little importance to the public, furnishing as they do an example of what may be done with soil that has been considered unfit for the purposes to which he devotes it. The great benefits which he has shown may be derived from drainage, and the cheap rate at which the work may be performed, will probably lead to an extensive practice of the system in the immediate neighborhood of Chicago, where it is much needed. I should have mentioned before, that apple, pear and cherry trees which have been set on the drained land, are thriving handsomely.—*Rural New Yorker*.

### Market Gardening.

The following report on Market Gardening is quoted from a discussion at a meeting of the Farmers' Club of Fitchburg, Massachusetts:

#### PREPARATION OF THE SOIL.

Mr. W. G. Wyman gave a few items from his own experience in market gardening, which, he said, had not been extensive or varied, and yet he presumed some statements of the little he had accomplished, would be as acceptable as anything he could say. He deemed the selection and preparation of the soil one of the first requisites of success. Ordinarily he would select a warm dry soil, with a southern exposure, but in his own case he had taken a comparatively cold, tenacious, thin soil, with an eastern exposure, because of the position near his buildings, and had expended more than \$100 per acre in removing the stones, underdraining and trenching, thus creating, in connection with the manure applied, a loose mellow soil of the depth of from fifteen to eighteen inches, on a field, which, while it had all the appearances of a smooth and reasonably fertile mowing field, had probably never before been worked to the average depth of more than four inches. The immediate effects of bringing so large a quantity of subsoil to the surface at once, he said, are not usually satisfactory. An immense amount of manure should be thoroughly intermixed with the whole loosened soil, and even then the results will not be so encouraging as after two or three year's exposure to the frosts of winter and the heats of summer. New subsoil requires long exposure to



atmospheric influences to become fully adapted to the growth of vegetation. Another requisite to success, where so much expense is incurred in preparing the soil, is to select such a rotation and make such an arrangement, that all the ground will be constantly occupied through the entire season with constantly changing crops.

#### SUCCESSION OF CROPS.

By way of illustration, Mr. Wyman said he had prepared a lot in the autumn by plowing or spading, and manuring, and as soon as he could get access to the surface soil in the spring, without waiting for the frost to be entirely removed, or for the ground to settle, he planted peas of an early dwarf variety, in drills twelve to fifteen inches apart, omitting one drill once in ten feet. The peas thus planted, are not injured by late frosts or cold rains, and are all ready to start into life on the first warm days, and do come forward earlier, and ripen earlier than those planted after the ground has become settled and warm. The space omitted once in ten feet, is, at the proper time, which is usually about or a little after the time for planting corn, planted with squashes, in hills eight or ten feet apart in the rows; these, when they come up, are protected from bugs by boxes six to ten inches high, intended for a cover of two lights of glass, which slide up, one side of the box being higher than the other; the glass, however, is rarely used for squashes, the sides alone being sufficient to keep off the bugs. The boxes with glass are very useful for tomatoes, and many other plants, which, when started early, need protection during high winds, cold nights and severe storms. The peas ripen and are removed before the squashes need the ground, which they soon after completely cover.

He has by this method, which is the one commonly adopted by him now, raised peas, which sold at the markets in this place, at an average rate of \$320 per acre, and on the same land, squashes at the rate of nearly ten tons per acre, which sold at the rate of over \$300 per acre. In another instance he has planted cluster onions as early as possible, they, like peas, being uninjured by cold or wet, and harvested the crop early in July, at the rate of 400 bushels per acre, which have sold for \$2 per bushel, then immediately put out strawberry plants, which, having time to become fully established the same season, produced their best crop the next year. Ruta-bagas and cabbages have profitably succeeded onions, and various other late crops have succeeded peas.

#### THE SELECTION OF SEED.

In preserving seed, Mr. Wyman deems the utmost caution necessary, especially with those varieties which mix readily, like the squash. His own method is to plant but one or two varieties; for several years only one, the Hubbard; at present two, the Hubbard and Boston Marrow, on opposite extremes of his farm, and as far as possible from those planted by his neighbors, to lessen the danger of mixture by the agency of bees. Then when fully ripe, he selects several, the most nearly perfect in size, form and color, and saves these for his own family use, which, when used, he carefully examined, testing the thickness, weight, fineness of grain, color and flavor of the meat, and finally

selects for his own planting, seeds from the one or two, which, considering all these qualities he believes to be best. In this way he thinks squashes may be brought to a high degree of perfection. Even in seeds which do not mix readily, he thinks selections should be made from the very best of plants of any variety, every succeeding year.

#### Low Branching Fruit Trees.

BY WILLIAM BACON, RICHMOND, MASS.

In years gone by, as the remaining trees in old orchards show, there was almost a universal practice of throwing the tree-tops high into the air; first, by allowing the trunks to arise some six or seven feet before they throw out branches; and second by pruning the branches near the trunk, leaving merely a tuft of limbs at the extremities of these naked arms. These outside tree-heads, formed on branches that had the appearance of *artificial* trees thrown out from the trunk, of course receded further from the main body of the tree each year.

The disadvantages of this way of growing trees are, their greater liability to be shaken and broken by high winds; the longer the lever, the greater the body in raising heavy bodies; the further the heavy tree-top is removed from the earth, the more power the winds will exert to overturn a tree. Then the branches are more liable to be broken by the weight of the top being far removed from the trunk, or, if not directly broken, they are severely twisted, and thus made unhealthy, which in due time, insures their decay.

The fruit on such trees is much more liable to be prematurely blown off by high winds; they are gathered with much more difficulty when mature. If the tree is shaken, as is still the custom with many, it is sadly bruised by the fall from these high tree-tops; and if picked off, the danger to life and limb in the operation is increased in greater ratio than the increasing distance from the ground.

But there is yet another objection to this method of tree-forming, fully equal to, if not greater than, all others. Sap is the life of the tree, and the excess of sap goes to perfect the fruit. The longer the trunk and branches of the tree, the more the small branches are thrown into tufts at the extremities of large limbs, the fewer will be the leaves to elaborate sap for the nourishment of the tree, and perfection of the fruit; consequently, a feeble tree and small and inferior fruit will in the end, be the result of the miserable system.

By the above noted system of tree-growing, they are more exposed to the ravages of insects. The more bare wood, and greater exposure of it to atmospheric changes, the feebler the tree, and more subject to attacks, not only of the hosts of animal depredators that feed most greedily on such trees; lichens gather on them more readily, and feed on their very vitals. Any one must know that these evils can not be so readily contended with on a high, illshapen tree as when near the surface; so that, besides the increased amount of danger from the evils alluded to, the difficulty of obviating them is so much increased that, in a sort of indolent discouragement, they are neglected, and old, moss-covered, worm-webbed, insect-bored



trees in a few years take the place of what may now be a young, thrifty and promising orchard.

When Nature raises trees, she does it on her own economical plan—one best calculated to give health and long life to her subject. In the forest we see trees shoot up their tall, mast-like trunks with a few branches at their extremities. Such trees are protected by surrounding trees while the forest remains; but remove the burden of timber, and how the remaining trees are rocked and shaken by the wind! How often their beautiful heads are decapitated by the raging storm! Who ever saw such trees on the border of a wood lot, or standing in isolated positions about fields? Such trees, if in the border of woodlands, throw out branches near the ground, to shield the body of the tree from storms and sunbeams. And the specimen of unrivalled symmetry in the field—how low its branches, and how beautifully it throws its long arms abroad! Yet these arms are not the naked ones that invite disease, but all along their length, they throw out little branches, from each of which a clump of leaves appear to aid in furnishing the tree with healthy life-blood. If these branches become too numerous, or if the weaker interfere with the stronger, nature prunes and casts off what is superfluous.

But to our fruit trees. The best specimen of an apple tree we ever saw, made its head so near the ground that a person can without difficulty step into the lower branches, and these branches spread so low that the fruit can be gathered without difficulty by a person standing on the ground. They are long branches, and the top of a tree forms a symmetrical hemisphere. Neither the axe nor the saw has been accessory to forming that tree-head. The hand and the pruning-knife directed the first starting of these branches, and here they stopped, unless two combatant branches so interfered with each other's rights that one of them must be removed. This tree-top is so dense and so wide, that the hot midsummer sun cannot send its fiery rays to scorch the unprotected part of the tree. They fall upon its leafy head, and the warm atmosphere is diffused along the trunk and among the branches. No insects have ever disturbed the tree, unless it were some straggling worm that so far forgot the rules of propriety and honor as to commence its web among its branches. And, what is far better, it has never failed of a crop since it commenced bearing.

Low trees come into leaf, flower, etc., earlier than tall ones. A pear tree seven feet high had branches within a foot of the surface of the ground. The lowest branches were in full leaf before the buds on the top of the tree had developed the color of the leaf. And a plum tree, with branches near the ground, gave blossoms on the lower branches from a week to ten days earlier than they appeared in the upper part of the tree. Let the difference continue in the same ratio through the season, and many of our fruits would be raised in much higher perfection than they now are.

We have no doubt that many of our old orchards have been injured more by injudicious over-pruning than in any other way. Tree-pruning was almost a mania. It must be done every spring. The lower limb must be taken off, and that branch pruned as far out as the operator dared to venture, and could reach with the destructive axe. Such

a system of tree-torturing and tree-mutilating could not be otherwise than destructive.

[Here are important truths, forcibly put. There is one point that we should have made stronger, and that is, that low-branched trees come into bearing at an earlier age than others. We think there can be no doubt at all about this; it ought, therefore, in connection with other manifest advantages, to determine our treatment of fruit trees. We commend Mr. Bacon's remarks to serious consideration.—*Ed. Hort.*

### The Great Orchards of California.

According to the editor of the *California Farmer*, the orchard of Briggs & Haskell, at Marysville, are on a broad scale. It would be impossible for a stranger to form any possible conception of the extent of these orchards, the immense crop daily gathered, or the wonderful producing power of the trees. Strange as it may appear, with all the disastrous effects of floods, which swept away and destroyed thousands of trees, burying, also, great numbers, and having many buried by drift-wood, of which more than a thousand cords of peach tree fire-wood will be made from the broken and killed trees; yet, with all this destruction, the crops of these orchards will far exceed any former crop. And this, too, with another singular fact, that with all the energy and attention possible, and with about seventy men, the fruit often ripens faster than it can be gathered—so much so that more than ten thousand bushels will be lost in these two orchards alone. In connection with these orchards, there is the Oroville Orchard, where about thirty men are gathering and shipping, in like enormous quantities.

That some idea may be formed of the magnitude of the business of these fruit orchards, there was sent from these fruit orchards, the second week in August, from sixteen to twenty tons, or from 30,000 to 40,000 pounds a day, of peaches, apricots and plums; of which about two-thirds were shipped to Sacramento and San Francisco.

We spent some time in going through these orchards, and noting the effect of the flood upon the trees. In many places in these orchards the drift-sand was piled up from two to four feet; but where the wash was only sand, no injury resulted to the trees; they were vigorous and healthy. But where the deposit was a soft clay, or mixed deposit, the trees were killed. In the entire orchard, among the peaches, nectarines, pears and apples, where the deposit was sand alone, the trees were loaded with splendid fruit—the nectarines and peaches, enough to load several clipper ships, the trees breaking down with the fruit, and the ground covered with the finest nectarines we ever saw.

From the Scientific American.

### Gardens of Mechanics.

We want to encourage our mechanics as much as possible, to cultivate small garden spots for the production of table vegetables; they will also find some satisfaction in the growth of some choice varieties of flowers. These two things combined give to the dwelling and the grounds adjacent a home-like appearance, besides adding to the luxuries of the table. A person in our employ who owns a snug little place near New York, raised last year, seventy-six bushels of excellent potatoes on a piece of ground measuring only just three sixteenths of an acre. In addition to this useful esculent, he cultivates choice fruit and flowers; the latter in great profusion. We often find, upon reaching our desk in the morning, a fine bouquet of beautiful flowers—such as Shenstone might covet—plucked from vines and shrubs grown in his garden. In addition to the floral produce of summer culture, we are often greeted with choice bouquets in mid-winter from the same source. Our friend has a skillful arranged greenhouse attached to his dwelling, which is kept warm in winter by the waste heat from the cooking range. It has acquired some years to arrange all these things—they have been done gradually, and they are now more than paying all outlays of time and money.

From the Gardeners' Monthly.

### Hale's Early Peach.

Fruit almost globular, below medium size. Skin white, dark rosy red on the sunny side, with a deep suture especially towards the apex. Flesh greenish white, sub-acid, very juicy, and agreeable. Stone broadly ovate, pale gray color, sub-free. August 12, 1863.

The above description we have made from specimens received from Dr. Edward Taylor, of Cleveland, Ohio. Excellent as the peach is, it is proper to say that Early York peaches are abundant in our markets, from New Jersey and Delaware; though probably these localities are much earlier than Cleveland, as Dr. Taylor writes that no peaches yet have began to color with him but this Hale's Early. Of course, Cleveland being so much farther north, there should be some difference, though when the lake shores are concerned, mere latitude does not always affect earliness; but Mr. Pullen, of New Jersey, informs us that in his orchard-house, Hale's Early maintains the character for extra earliness given it West, and it no doubt fully deserves the good character it has obtained.

### Tree Management.

The *Country Gentleman* is publishing a series of articles on this subject which are interesting, and, in the main, valuable. The writer holds that an orchard should be cultivated, and no grain or grass grown in it; that the trees will do better, grow more thrifty, and give more and better fruit—all of which will not be denied here. But how much more profitable will such a crop be than if grass, or grain, or hoed crops are permitted to grow in

it when the soil is rich and deep? We think the difference is not so great as is generally held. When the crop of grass, or whatever is raised in the orchard, is reckoned and added to the fruit, the balance will be in favor of cultivating the soil. We usually raise two good crops of hay from our orchard, in a year; and the best and heaviest crop of apples in the neighborhood. But we take better care of our trees than our neighbors. If you wish to raise your fruit to show, keep your ground in fallow, for trees, in one sense, are a crop, and will do best by being cultivated clean. But the most income is in reaping your ground as well as your trees.—V. F.

From the Gardener's Monthly.

### Troubles of Fruit Growers.

Many persons forget that gardening is an art; and of those who do not forget this, there are many who think it one of very easy accomplishment. They act as if gardening were natural to a man, and go into it precisely as young ducks take to water. But not being ducks, they find the waters of Horticulture too warm for their delicate knowledge, and they retreat disgusted with it.

Our friends who fail in fruit growing, must remember these things: "Eternal vigilance is the price," not only of "liberty," but of fine plums, large crops and big pumpkins.

Do not be deterred by the cry that certain things "do not pay;" first succeed at any cost, and you will soon learn to reduce the expenses within a paying point if you so desire.

### Isabella Grapes.

Hon. E. Cornell, of Ithaca, writes to the Journal of the New York State Agricultural Society, under date of June 21st, 1863, and says:

I have this moment been greatly surprised by one of our farmers, Mr. Levi Williams, of West Hill, Ithaca, bringing in a dozen bunches of grapes as fresh and plump as if just from the vines. They are of last summer's growth, and were preserved by being laid down in a box with layers of cotton cloth between the bunches of grapes. I will send you a bunch of them by express, and hope they will reach you in as fine preservation as they leave me."

These grapes arrived in good order, and they were as fresh as if taken from the vines. So simple a proceeding as this will lead our grape growers to preserve their grapes, and have a supply the year round.

### Fruit in Utah.

A correspondent of the *Farmer's Oracle*, writing from Manti, says:

"I have a nice patch of strawberry vines that look well and fruit this season. The English gooseberry grows finely here; I have fruit this year 2½

inches in circumference. Many of my newly planted peach trees are bearing this year, as well as plums and apples.

### The "Fluke" Potato.

The attention of the Cincinnati Horticultural Society has been called to a new variety of Potato, which was introduced from England. At the last meeting of the society, D. B. Pierson, Esq., in the chair, a committee reported that the specimens of these potatoes which had been referred to it, were of "full medium size, smooth, even, and nearly kidney shape; were cooked by putting them into boiling water, and in twenty minutes were thoroughly cooked, and came out, to use a common culinary phrase, "like balls of flour." In view of the great economic value of the potato as an article of diet, your committee think the Fluke will prove a very valuable acquisition to our present very limited kinds in cultivation, and believe it only requires to be more generally known to commend it to the attention of our farming community.

### Nails and Peach Borers.

Where climate is not unfavorable the Peach Borer is the worst enemy the grower has to contend with. It is not strange, therefore, that there should be a great deal of anxiety to ascertain an effectual remedy. Nor do we consider it a remarkable fact, that persons are on the look-out for an easy mode of destroying the pest—one that will call for very little exercise of patience and skill. Any foolish plan that happens to find its way into the papers is adopted most eagerly, if it only promises to do the work *easy*, no matter how ridiculous. constant vigilance is the price we have to pay for our liberties. The success of one of these labor-saving plans is detailed by our correspondent below:

Last year an article was going the rounds of the papers, stating that nails driven into peach trees would prevent the destructive operation of the borers. I tried it on several hundred trees at various times during last season, nailing them according to direction, at and near the parts affected. I usually cleaned out the borers, and then nailed the trees at once. Now for the result. I am glad to say that this season I have not found the rascals have gnawed off any ten-pennies, but they work all around them, close to them, where the soft gum is perfectly blackened with the oxide of the iron, which I had an idea was to do the killing. If others have nailed their trees at a different "time of the moon," I shall be glad to know the result. And why cannot your subscribers, and the friends of fruit culture, make up a purse to stimulate inquiry, to be paid to the successful discoverer of some practical remedy for the peach growers' worst pest?—K.

The *Rural New Yorker* says, "the insect which produces the grub which destroys so many peach trees, lays its eggs in the soft bark, near the surface of the ground. This is done in May or June. The proper way to destroy them is to examine every tree in the spring and dig out the worms; then make a mound of earth around each tree, say a foot in height. This covers the soft part of the bark so that but few eggs will be deposited. The mound may be removed in July. In September examine the trees again, and kill the worms that are found. Pursue this course for a year or two and the trees will be saved from injury. This is the best plan we know of, but if any of our readers can give us a better and easier method we should be glad to be informed of the fact. We do not wish, however, untried theories.

### What to do With Summer Fruit.

Much summer fruit is very transient, decaying even before it falls from the tree, and sometimes even before it is ripe. This is true of many pears. Picked, or shaken from the tree and picked over, they make excellent *perry*, which is like cider, but more delicate and wine-like. It needs a cool cellar to undergo its fermentation in. Apples should be made into cider. Sweet, it brings a high price in market, and is a delightful, cooling beverage, but does not make so good cider as later when fermentation is less rapid. The small hand mills and presses are very good for pressing fruits, and a family may supply itself with the juices for preservation, and considerable quantities for sale.

Ex.

The above is well worthy the attention of even small orchardists.

Ed.

### Packing Grapes.

S. Mitchell of Steuben county, writes the following in the *Rural New Yorker*:

Last fall, I instituted a series of experiments to ascertain the best method of keeping Isabella grapes through the winter; the result of which, no doubt, would be of interest to that portion of your readers who are lovers of this delicious fruit. They were all packed in boxes, one foot square and six inches deep, admitting three layers of clusters, and kept in a cool, dry cellar; in fact, so cool during the winter that water standing in a pail would freeze half an inch thick. I am satisfied that the nearer the freezing point grapes, and in fact all other fruits can be kept, without actually freezing, the longer and better they will keep.

Box No. 1 was packed with alternate layers of grapes and fresh grape leaves.

Box No. 2 with alternate layers and colored sheet wadding.

Box No. 3 with alternate layers of newspapers and grapes.

Now for results. No. 1 kept fresh and nice until about the last of December, the fruit seemingly improving in flavor, and greenish clusters ripening

up; when the leaves and stems of the fruit began to mould quite badly.

No. 2 kept tolerably well until about the middle of December, when I found the cotton sticking to the grapes where they came in contact, and the berries rotting and the stems mouldy.

No. 3 kept the best of the three by all odds. By changing the papers and repacking, I kept grapes until the 15th of March perfectly plump and fresh, and most of the stems fresh and green. I know not how much longer they would have kept had I not used up the last of them at that time.

### The Munier Grape.

While in Massillon recently, Mr. James M. Brown called our attention to a new grape which is thought to have originated in that vicinity, and which ripens several weeks earlier than the Isabella. Other gentlemen as well as Mr. Brown, gave this grape a character which surprised us, both on account of its earliness of ripening and excellent quality as a table grape, besides which they say it is a great bearer. From an inspection of the vine on the premises of Mr. Brown, we are sure the grape is as hardy as the Isabella or Concord. All that we could learn of the origin of the grape was, that the original vine was found growing on the premises of an honest German near Massillon, and the fact of its good qualities having come to the knowledge of several amateur cultivators of the city, it was propagated from, and in every instance fully justified the expectation of its propagators.—*Ohio Farmer*.

### Grape Growing in Iowa.

H. A. Truax, of Lyons, Iowa, who has been quite largely engaged in small fruit for two or three years, and who has been very successful in propagating the grape, says the Concord is the most reliable of all grapes for the Northwest; the Crevelling and Hartford Prolific are not far behind. The Delaware is going to take the place of the Catawba. No trouble with it after the vines get old enough to bear. All the Delaware wants is age; slow grower, but sure on the last "heat."—*Prairie Farmer*.

### Preparing Rennet.

I answer the inquiries of C. B. Chapman, of California, in *Rural* of July 18, relative to preparing rennet, as follows:

The rule is applicable to green or dry rennet, though I think the better way is to salt them down in a stone jar as soon as saved. I generally use them prepared in this way, but it sometimes happens that I have not enough; in this case I get dried rennets, which are equally as good. You need have no fears of your cheese fermenting or raising when the rennets are used green, if you will fill them with salt (being careful to preserve the curd with them), before soaking for use. I have become necessitated to use them in this way and am never troubled with cheese raising—a difficulty wholly attributable to lack of salt.—Mrs. GOULD.

Leaves of parsley, eaten with vinegar, will prevent the disagreeable consequences of eating onions.

## Stock.

### Cashmere Goats.

Some very fine Cashmere goats have been shown at our State fairs. It may therefore be interesting to our readers to know something of the value of the fleece of this animal. Mr. Klippart appears to have done the subject justice and taken the starch out of the speculation that was like to grow up with the new animal. ED.

MESSRS. EDITORS:—It would have saved me a great deal of trouble and vexation of spirit if I could endorse and carry out in practice the saying of Talleyrand, namely, that language was given to man to enable him to conceal his thoughts. I was somewhat surprised in reading the last number of the *Farmer* to find myself the subject of an article entitled "Cashmere Goats—Injustice." There is no doubt in my mind that Mr. Ogden intends me as the "Columbus gentlemen;" but then his informant is very much at fault; or else—and I cannot think for a moment that this is true—that Mr. Ogden has misrepresented.

I stated to the gentlemen who went to obtain his purchase of "four hundred dollars per head," as near as I can now remember, as follows:—"If I owned a flock of sheep I would not be without a pair of Cashmere goats, on purpose to protect the sheep from dogs." The gentleman stated that the fleece was as fine as Saxony wool—was used to make the Cashmere shawls—and was worth *eight* dollars a pound. I replied that a part of his statement was *probably* true; but the other part was not true. It is *probably* true that the wool sells for *eight* dollars per pound—I have no idea of its commercial value; but it is not true that the fleece is as fine as Saxony wool—neither is it true that the Cashmere shawls are made from the fleece. I have measured with a capital micrometer 39 samples of wool and four samples of long or fleece hair or wool of the Cashmere goats owned by S. S. Williams, of Granville. To make sure that I committed no errors in my measurements, I gave all the samples, properly numbered, to an excellent microscopist in this city—one who has access to the best microscope in the United States. He measured them and returned them to me, noting on the wrapper of each sample his measurement. His measurement and my own agree precisely. The micrometer used was one in which the inch was divided into seven thousand five hundred parts (7,500.) Seven samples of Saxony wool, belonging to three different individuals, and embracing bucks, ewes and lambs, measured ranging from 5-7500 to 8-7500 of an inch, whilst the finest hair or wool from Williams' thorough-bred buck measured 17-7500, or a little more than just double as coarse as the coarsest Saxony wool, and three and a half times as coarse as the finest Saxony wool. The Cotswold, Leicester and Southdown wool ranged from 16-7500 to 18-7500 respectively, or about the same fineness as Wm. Williams' fine thorough-bred imported buck. But the fine down on a three-fourths blooded buck measured 9-7500 or just 1-7500 more than the coarsest Saxony. Now, I have no doubt—but do not know it in fact—that



the fine down from a thorough-bred buck would be just as fine as the finest Saxony wool.

So much for the fineness of the goat wool or hair, and the down. I have made these measurements without fear or favor—and am not afraid to publish them—prove them by a competent microscopist, and demonstrate them, whenever the necessity of the case may require it.

Now, it is this fine down, or very fine hairs or wool that is found around the roots of the general fleece of the goat from which the genuine Cashmere shawls are made.

I stated the foregoing to the man who had made the purchase, and I added that the best and largest thorough-bred ewe or buck would yield a few ounces only of this down of which shawls are made, at a sheering. I told him furthermore, that the general fleece might weigh from four to six or seven pounds; and as it was no finer than Cotswold or Leicester wool, I did not think its commercial value would be any more than that of good combing wools, which in ordinary times was about twenty-five cents.

Now, as to the proof that the genuine Cashmere shawls are made from the down and not from the fleece, I will quote my authorities, and Mr. Ogden, or any one else, may controvert them if he or they see proper and can do so successfully. My first authority is Ure's Dictionary of Arts, Manufactures, &c., Vol. I, Second American Edition, D. Appleton & Co., N. Y., 1843, page 273.

"The material of the Cashmere shawls is the downy wool found about the roots of the hair of the Thibet goat." \* \* \* "The quantity of fine fleece or down afforded by each animal annually is from one-half to three-quarters of a pound." \* \* \* "Its price a few years back at Paris was seventeen francs per kilogramme; that is about six shillings the pound, avoirdupois." \* \* \* "The oriental Cashmere shawls are woven by processes extremely slow, and consequently costly; whence their prices are very high. They are still sold in Paris at from 4,000 to 10,000 francs a piece, and from 100 to 400 pounds sterling in London."

The next authority is the Encyclopædia Britannica, quoted by J. Smith Homans in his Cyclopædia of Commerce, Harper & Brothers, N. Y., 1858, page 281, article, Cashmere.

"These shawls owe their peculiar beauty and fine texture to the wool which is brought from Thibet, lying at a distance of a month's journey to the northeast. The wool forms the inner coat with which the goat is covered, and the breed is peculiar to Thibet; all attempts to introduce it into India or Persia have invariably failed."

In Vol. IV, of Appleton's New American Cyclopædia, pages 513, 514, will be found an article detailing the process of manufacturing the genuine Cashmere shawls from the Thibet goat down, also the process employed by the French of imitating these shawls from the wool or hair of the Angora goat. It appears from the same article that Messrs. Jaubert, Ternaux and others in France, and Mr. Taylor of Essex in England, imported some of the crosses of the Thibet and Tartar variety of goat to France and England, but "the down they furnished proved, however, to be of too little in quantity to be of value; but by crossing the breed with the Angora goat, the downy product was largely increased." Whether the article in Appleton's Cyclopædia is reliable or not I am not prepared

to state; but if it is reliable, then the "Cashmere" men in the West are laboring under a great mistake. They have in some places advertised their animals as "Angora goats," but the Appleton article says "Dr. J. B. Davis of Columbia, S. C., while employed a few years since, by the Turkish Government, in experimenting on the growth of cotton in the Ottoman empire, succeeded in securing eleven pure breed Thibet goats, which he brought to his native State, from whence the goat has been introduced into Tennessee, where it is said to thrive. In 1857 the wool raised in Tennessee brought \$8.50 per pound—the purchasers in New York proposing to send it to Scotland, to have it manufactured into shawls." I venture to say that that was the best sale ever made of Cashmere wool, and much better than will be made during the present or next wool season.

Now, Messrs. Editors, I have made diligent inquiry in New York city, and of our own Cashmere men here, with respect to these Scotch Tennessee Cashmere shawls, but up to the present writing, (August 1, 1863,) have been unable to learn anything in regard to them. It appears to me that if the Cashmere men in Ohio or Tennessee had succeeded in getting shawls made, that some one of the exhibitors of Cashmeres at some one of our State Fairs would have been able to inform the awarding committees before this time, and it would in some shape or other have found its way into the annual report of the State Board of Agriculture, and have been presented to at least thirty thousand readers. Thus much for the Cashmere shawls.

Mr. Ogden truly says "He (the Columbus gentleman) occupies a place where there should be no prejudice, but instead, unbounded liberality and encouragement to those who lay out large sums of money for the introduction of new and valuable animals." No prejudice! calls to mind a lecture which Epicurus read to Theon, in which he confesses that at seventy years of age he was not free from prejudice, although he had labored hard all his lifetime to be free from it. What then, is to be expected of a *Buckeye* at half the age of the Grecian philosopher? I have endeavored to persuade myself that I was free from prejudice so far as the Cashmere goats were concerned—at least some of the Board were strongly inclined to think that I was prejudiced in favor of them. Then as to "unbounded liberality and encouragement to those who lay out large sums of money for the introduction of new and valuable animals," all that I can say is that I, in person, individually, with my family, collectively, patronize every—every—menagerie that "comes to town." His insinuation that I own a fine flock of sheep will make some of my neighbors think that I am "getting along in the world," for during the seven years that I have resided in Columbus I have owned neither horse, cow, sheep, hog or dog—one of my daughters had a kitten once, given her as a present.

So far as Cashmere goats are concerned, I have done for them what I could without jeopardizing my integrity, or bringing the goats in conflict with other interests, and when my opinion of them was solicited, I have given it frankly, freely, and in substance the same as I gave it to the gentleman who made the four hundred dollar purchase from Mr. Ogden. I have never said "humbug," but deemed it my duty to advise all who solicited my



opinion that they need not expect annual fleeces from the Cashmere goat of five or six pounds per animal, which could be sold for \$8 per pound, and manufactured into genuine Cashmere shawls. I have no doubt their flesh is good to eat, and that their fleeces can in course of time—when we get proper machinery, and there are goats enough to supply manufacturers—be manufactured into DeLaines, Chaileys, and other textile fabrics of the same description, for which Cotswold, Leicester and other long combing wools are used.

JOHN H. KLIPPART,  
*In the Ohio Farmer.*

### The Hog and its Food.

A correspondent of the *American Stock Journal* says the propensity to acquire fat in many animals seems to have been implanted by nature, as a means of protecting them against certain vicissitudes to which they might be exposed. The hog fattens most rapidly in such a state of atmosphere as is most congenial to her comfort—not too hot nor too cold. Hence, the months of September, October and November are the best for making pork. The more agreeable the weather the less is the amount of food required to supply the waste of life. It has been found by experiment that a field of red clover is the best and cheapest place to keep hogs in during spring and summer months, where they can have plenty of water, and the slop from the house, and the sour milk from the dairy. All sour food contains more nitrogen than when fed in a sweet state. The first green herbage of the spring works off the impurities of the blood, cleanses the system, renovates the constitution and enables the animal to accumulate a store of strength to carry it forward in its destined course. A small patch of oats or peas to turn into when the clover fails, is good. Some object to fattening hogs so early in the season; the Indian corn depended upon for the purpose, not being matured. Taking all things into consideration it is better to feed corn before it is ripe, as in that state it possesses considerable sweetness, and most varieties are in milk by the first of September, the hogs will chew it, swallow the juice and eject the dry, fibrous matter. At this season of the year swine can be fed on articles not readily marketable, as imperfect fruit, vegetables, &c. When such articles are used, cooking them is generally economical. Pumpkins, squashes, apples and potatoes, boiled or steamed, mixed with one-eighth part in bulk with mill-feed or meal, whey, and milk left to sour, will fatten hogs fast. In this state they will eat it with avidity and derive more benefit from it than when fed in an unfermented state. Articles that are of a perishable nature should be used first, to prevent waste, as it is desirable to turn all the products of the farm to the

best account. Another quite important advantage of early feeding is, the less trouble in cooking the food and keeping it in proper condition to feed out. The convenience of feeding is promoted as there is no expense or trouble to guard against freezing.

The more you can mix the food the better, as they will thrive faster on mixed food than when fed separately. In feeding, no more should be given at a time than will be "eaten up clean," and the feeding should be done regularly as to time. It is of the greatest importance to get the best varieties those that are well formed; that have an aptitude to take on fat readily, and consume the least food. As to which is the best kind, there seems to be a great diversity of opinion, some preferring one kind and some another. The Suffolks come to maturity earliest, and probably, are the most profitable to kill at from seven to ten months, but I prefer the Berkshire to any I have ever kept. A cross of the two make good feeders, and the pork is excellent, they will usually weigh from 250 to 300 pounds, at the age of from seven to ten months. The better way is to have pigs dropped about the first of April, and feed well until December and butcher. From a variety of experiments I am satisfied that it is wrong to let hogs remain poor for twelve months of its life, when it could be made as large in nine months as it generally is at fifteen months. And I conceive it a great error with our western farmers to feed their corn to hogs without grinding. If pigs are kept well three months after being dropped, they cannot be stunted after that even if the feed is cut short. It is now the opinion of our good practical farmers, that feeding apples to swine is profitable, and that there is no crop that pays better according to its cost, being fully equal to potatoes by measure, while the expense is not more than three to four cents per bushel. They are better to feed to stock hogs in a raw state than potatoes; indeed, from my own experience, I have found but little benefit in cooking apples for swine. It is desirable that hogs should be provided with a dry floor for eating and sleeping only, the whole pen completely sheltered from the atmosphere, to save any washing or waste of manure. One other suggestion, and I have done: every farmer should see that the commonwealth of the piggery is furnished with plenty of straw, potatoe vines, leaves, saw-dust and the like, with an occasional load of muck, and almost any quantity of weeds, pea and buckwheat straw, all of which will be converted into the most efficient support of vegetable life. Hogs are the best composters known, as they delight in upturning any such articles as the farmer wishes to convert into manure for the coming year.

### Foot Rot in Cattle.

A correspondent of the *Ohio Farmer* states that he cured this complaint as follows: "I procured a wash of strong lye and bathed the legs effectually from the knee to the hoof, and was very particular to wash in the clefts of the hoofs. I then wiped the legs dry with a cloth, and let her stand in a warm dry stable all night. Next morning I made a wash of strong vinegar, in which was dissolved a good portion of blue vitriol; heated it as hot as I could bear my hand in it, and applied it twice a day for about two weeks, when the animal was cured."

### Cure for Worm in the head.

Some thirty years ago there appeared a statement in Gov. Hill's *Monthly Visitor*, that worms in the head of sheep could be cured by simply taking whale oil, and with a feather put it up the nostrils two or three times. It should be done in the spring, or whenever the symptoms of the disease make their appearance. It is said by those who have tried it to be a sure remedy.

From Wilke's Spirit.

### The Horse.

The horse is a living machine, capable of more or less reasoning, and set in motion not only at our will, but also on his own account. The trainer must, therefore, before he begins to handle it, make himself familiar with the capabilities and peculiarities of both body and mind. We hardly ever find this machine in perfect symmetry—it is not even wanted to have it so; for the English race-horse is not symmetrical, but has intentionally, by careful breeding, undergone a change of figure deviating entirely from its ancestors, the Arabs. But any such deviation, although it may favor a certain quality, for instance, speed, is the reason that the horse cannot perform other work with equal ease. The body of the thorough-bred appears more symmetrical than it is, because by breeding for the turf the withers have become so high, that it looks as if the shoulders were as high as the hips; but the disproportion of the legs strikes any beholder, the fetlock and radius being too long, and the shankbone too short. If these horses perform great deeds apart from speed, find the reason in their great muscular power, and their small bones, as well as in the lightness of the head and neck. But very seldom will the thorough-bred naturally be a good steeple-chaser, or an agreeable saddle-horse; if he is such, he will certainly resemble more or less the Arab, as does also the English hunter, except in size.

### American Pork.

A Correspondent of the *Irish Farmer's Gazette* writes to the editor of that paper as follows:

SIR: I want your opinion on the inundation of the country with American bacon, hams, &c., as to whether it is better for the community at large to get their meat at the present low prices, and, as must be the case if this deluge continues, the breeding and keeping of pigs at home given up as a thing that won't pay, or whether something in the way of an import tax on salted provisions should not be tried, to give poor Irish piggy a chance. It would be a pity, I think, to see the cabins without their friendly gruntings, and to know that the means of putting a few shillings into a laboring man's pocket as to be taken away from him, because American speculators can furnish the markets at a much cheaper rate; yet I think there is no doubt such must be the case, if things go on as they are at present.

—The editor makes no reply.

## Correspondence.

### What is Hog Cholera?

To the Editor of the *Illinois Farmer*:

I have lived in this State about twenty years, and have kept hogs—some times but few, some times more, say from ten to two and three hundred, and have never seen a case of what I knew to be hog cholera. I have seen the Asiatic to my heart's content, but that was in the human system. The symptoms and progress of that disease are purging, vomiting, cramping, collapse, and the death-curtain drops and closes the scene. I have had hogs get sick and die, but I have never known a case that I could call cholera. I have heard of a great many hogs dying with hog cholera, and in fact for the last eight or ten years, when any considerable number of hogs get sick and die it is pronounced hog cholera, and I have no hesitation in believing that many hundreds die with that disease, though I never saw one. But have not many died from other causes, for which a remedy might have been found? I seldom have a hog get well when once sick.

About two weeks since I experienced a most singular phenomenon in my yards. I had over one hundred hogs in a yard, containing one-fourth of an acre of ground, adjoining this yard I have a hog house, in which I had 48 hogs, adjoining the house and on the opposite side from the large yard, I have a small yard, about four rods square, in which I had twenty-six hogs, making in all about one hundred and eighty, all of which I was feeding for market. Those in the large yard were some older and larger than the others. They had all been running on clover during the summer, until put in these pens; the larger pen had been filled about a month, the house and small pen had been filled about two weeks. When one in the house

became convulsed with severe jerking and trembling, with a mourning noise. At 2 o'clock, p. m., we separated him from the rest; 5, p. m., we had four dead and four sick; some of the sick kept a continual twitching of the nose. Next morning had ten dead and three sick—turned all the well ones out of the house and small yard, for the disease was in both; turned them into a woods pasture; next morning found one new case in the pasture, fourteen cases in all, one of which is living and eats pretty well, but seems to be wrong about the head. The two last that died lived about sixty hours after they were attacked. Some at death emitted blood at the nose. On *post mortem* examination there was nothing to attract my attention in the intestines or body of the hog, but found blood settled on the brain, and from the brain to the nose through all the parts was filled with dark blood.

#### DISEASE.

Congestion of the brain. No. of cases—fourteen sick, thirteen died.

#### TREATMENT.

The hogs died so rapidly that I did nothing for them, except three, the two first, and the last attacked. I bled them under the eyes. One bled freely and recovered, the others did not bleed much, and lingered sixty hours and died. The hogs in the large yard did not get sick. The hogs in all the yards and pens had been fed on ground corn soaked in water twenty four hours before feeding. Two days after I had removed the sick and dead hogs, I returned the hogs to the pens again, and they appear to be doing well.

#### PROBABLE CAUSE.

The day before the appearance of the disease, I put more salt in the troughs than they ate at that time, and when they were fed at night, they had to eat more salt to get the food. The next morning there was food in the troughs. I thought they acted thirsty, I gave them water, and in six hours the disease made its appearance.

Now if you think these few hints can be of any use to your readers let them have them for what they are worth.

M. GREENMAN.

TISKILWA, ILL., Sept. 12, 1863.

—It is certainly a misnomer to call this disease the hog cholera. Our readers will thank Dr. Greenman, for his plan of treatment and suggestions. In the next number we hope to have some more tangible information in regard to this disease.

Ed.

### Weed's Tree Protector.

*To the Editor of the Illinois Farmer:*

The August number of the Farmer contains the following recommendation, "over the left," of my tree protector: "James Weed, of Muscatine, Iowa, has invented a shelter for the peach and other fruit trees. We have examined the plan carefully, but fail to see any particular advantage in its use. It is too expensive an invention in its results—better use a fruit house at once, and grow the trees in tubs."

This is right; we court criticism, as our invention must stand on its merits. It is not of the "big willow" species.

Will you please give us your ideal of a "fruit house," in general terms, with an estimate of cost, routine of management, and probable results with trees in tubs? This will embrace precisely the data with which we wish to place our "shelter for the peach trees" in direct comparison.

The big willow and timber shelter to the north and west of orchards, so much talked about, and so strongly recommended of late by northwestern pomologists is, in our estimation, like a new coat with a hole in it—good enough as far as it goes, and much better than none, but so far as answering a gentleman's idea of a coat, the hole spoils it. The influence of wind-breaks is not to be ignored, nor will it do to extol it as all-important. Said Mr. Stevens of Winona, "Talk about protecting the peach up here in Minnesota, where the thermometer goes down to 40° below zero, and would go lower if it was long enough!" We say, talk to him about wind-breaks and timber shelter; it is temperature he recognizes and appreciates as the important climatic element of destruction.

A lady, on a winter's morning finds her geranium stiff with frost—the thermometer a little below 32°. She immediately immerses cold water, and they are taken out as fresh as ever. Again they are found frozen, the mercury having fallen to 20°, again they are immersed in water, but when taken out they instantly droop to the ground. It was too cold.

The fruit-buds of the more hardy seedling varieties of the peach will endure 12° below zero, while the finer budded varieties are killed by this temperature, and sometimes injured by eight; and 20° to 25° sweeps all indiscriminately, with many kinds of the cherry and plum. Instances may be cited to prove exceptions to this rule, but we are not therefore at liberty to disregard the facts and dates upon which the rule is founded. One thing is quite certain if the temperature does not fall below zero, we need no wind-breaks or shelter to prevent fruit-buds being killed in winter.

"In the morning sow thy seed and in the evening withhold not thy hand."

A correspondent of the *Prairie Farmer*, writing from Southern Missouri says: "This country tho' high, is subject to early and late frosts." The far famed peach region in Southern Illinois, being in similar latitude, we should suppose subject to similar casualties; and cultivators well know that frosts at the time of inflorescence are usually much more disastrous with a still air than when a moderate breeze attends. Timber to the north and west of orchards, often deprives of the benefit of a light breeze, and it also increases the evil of too warm spells which are liable to occur in winter, and hastens the blooming season in spring. And still our pomological savans mount and ride this hobby of timber shelter as the universal panacea for the fruit grower, north or south. What has become of the old theory of "northern slopes?"

Every farmer knows the importance of wind-breaks for his stock, and though his cattle can live, and perhaps be raised profitably with the shelter afforded by belts of timber or high board fences, he admits the economy of well built barns.

Timber shelter is all right when it answers the purpose, but when it does not save our trees, and when it fails to save the fruit crop—it may be fire wood, fence rails, &c., to the farmer, but it is a bar and a nuisance to the pomologist.

"A cold wave" from the north occasionally extends its devastating influence down near the Gulf; and again in mid-winter a warm unclouded sun, co-operating with balmy breezes from the south awakens an untimely activity in trees, and the fruit grower can only fold his arms and wish in vain his shelter to the north and west, transposed to the south and east; but even this would not answer his purpose. He wants some covering over his trees to exclude the warm air and the sun's rays, capable also, when a "norther" sweeps down the valleys of warding off the blast and returning the heat constantly radiating from the earth—a covering of glass, canvass or other material affording positive and reliable protection.

Our system claims to be more than simply "a shelter for the peach and other fruit trees;" it guarantees sufficient protection, by which we mean a positive modification of temperature, adequate to the purposes desired. It assumes to be worthy the dignified appellation of a fruit house—constructed in the simplest manner possible, and of the cheapest material, capable of forming such a structure.

JAMES WEED.

—So soon as we have disposed of the fairs and fall setting of trees, we will endeavor to find time to discuss this subject.

Ed.

## Miscellaneous.

### Our Howadji in Egypt.

Midsummer in Egypt—Fruit Prospects at the Grand Chain—Hindrances to Cultivation—Want of Proper Dwellings—Adobe Houses—Their cheapness and durability—Manner of manufacture.

EDITORS PRAIRIE FARMER:—To a Knickerbocker, born and bred among the icebergs of Northern New York, a transition to the climatic parallels of the capitals of Italy and Dixie, presents some very striking features. Whew! The very thought is stifling! With shirt dripping with perspiration, the mercury up to a hundred, and not a leaf stirring, what wonder! Exertion not to be thought of for a moment. Northern activity soon "runs itself into the ground." You feel sleepy, and close your eyes for a nap—confound the flies! No relief in oblivion, you pick up Fanny Kemble's new book to find condolence in its mournful pictures; but you find it was written in the *winter* time, and in spite of its charming composition and fine periods you nod and lay it aside. Not a sound is heard, except now and then the falling of ripened apples from their parent stems. You "stir around" to work off the oppression, but only to produce a headache, and so passes the day. But the nights, thank Heaven, are glorious. The air is cool, and *not a mosquito* to glut his fiendish desires upon your person. They evidently dislike the dry, rarified air of the high table lands or fruit zones, and prefer the low, cool and moist valleys of the Big Muddy, the Drury and the Calliham.

Amusing, to say the least, are the reports of the horticultural sap-heads who yearly visit this region. They see strange sights, and build up theories, and take it for granted that *they* have made important discoveries, wonderful to relate. But sad and mournful are the experiences built upon such theories, without the aid of a little horse sense, and a few practical comparisons. One party is sanguine of a fortune in fruit, which he imports at a great expense from the coast of New England, but to find it totally unsuited to the climate, and which proves a failure. Another, with immense wine cellars full of barrels stored with wine, with a rapacious demand for the same at a fabulous price, all in his fancy, plants a vineyard. Is not the Catawba and Isabella tip-top on the Hudson? In course it is. Then why not all the better for the Grand Chain? They are procured in quantities, stuck into post-holes, and left to shirk for themselves. And, alas for human dreams! After years of hope and letting alone, they bear a few bunches. "Next year, wife, we'll fill our wine barrels." Another year comes soon enough, and with it the seeds of destruction, and the vine is loaded with rotten grapes.

Now we like the enterprising spirit that dictates all their experiments; but there seems to be a radical defect in adaptability of choices. We may come here with all of our northern habits, may introduce to our homes all the *et ceteras* of the high civilization of New York and New England, and with success; but when the soil and climate are consulted, Dame Nature makes rather wry faces at many trees and plants foreign to her fancy.



Temperature, length of season, and chemical qualities of soil, are here peculiar, but remarkably suited to nearly all kinds of fruit. If pains be taken to plant fruits best adapted to the country, nature meets us with a lavish hand.

But it must not be supposed that permanent success in fruit culture will accrue from the mere planting and waiting. Obstacles, formidable and obstinate, must be overcome. In the large fruits the "Little Turk" is our chief enemy, and he is not to be despised. He has an army in the field as numerous as the leaves of the forest, and armed with deadly weapons. As our peach orchards multiply, so does this army of vandals, and it has really become a serious question whether they can be put to flight. The failure in the peach crop this year has been owing in a great extent to the ravages of these insects. We hear very little complaint of their interference with the apple crop, although we have noticed apples on particular and apparently diseased trees completely riddled by them. There is a large crop of apples, and of good quality.

Grapes, of the common varieties, are all rotten. A very few varieties, however, are all right—the Delaware pre-eminent among these. The Scuppernon, so successful in North Carolina and Virginia, has not yet been fruited, but much is hoped for it. Your correspondent knows nothing of grape culture, and he may be lucky in this; but it seems to him that from the mean annual temperature of the country, and the corresponding location of the isothermal zones, that the hardier southern grapes must be the best adapted to cultivation here. That the problem will be solved soon there is no doubt, and there is much to indicate this as a grape growing country.

All varieties of potatoes, early planted, are in abundance. But you people who cultivate the clean mellow soil of the prairies know very little of our sorrows in this line. Among the pests of the farm is the sassafras. This odorous shrub is difficult to exterminate. In plowing, the roots are cut in many pieces, and each piece is sure to send up a thrifty shoot. On fields that have been cultivated for twenty years, this nuisance remains as vigorous as ever. This and persimmon sprouts are the chief woody encumbrances, and nothing but the most radical pains taken will exterminate them. The weed, commonly here as the *rag-weed*, I need not mention, as weeds are common and vigorous on all rich soils. But there are grasses peculiarly obstinate—the chief of these are called by the natives crab-grass and flax-tail grass; they spread over the ground in short-jointed vines, and take root at every joint. The utmost vigilance is necessary to keep these pests in subjection, as but a very few days are necessary to cover the ground with a complete matting of grass.

Among the chief inconveniences of this latitude is the want of comfortable dwellings, and I have no doubt that full one-third of the sickness in Egypt is owing to this cause alone, and another third to the use of improper food. The influx of northern settlers, is, however, working a change in these matters. Sickness is unknown in their families. This may be owing to an almost wholly vegetable diet, and a free and constant use of fruits. Nothing, it seems, is so wholesome, as an article of diet, as these, especially in a billious country.

In the way of dwellings suitable to these long

period summer heats, the desideratum has not been reached. We must have abundant roofing. We must have plenty of shade in the way of verandas. We must have thick, non-conducting walls, and large windows. Instead of our thin wooden boxes which heat through like an oven, would it not be well for our people to study the adaptability of dwellings a little better. The old Spanish mode of building dwellings, and even churches, of *adobes*, is not to be despised. They are the coolest, cheapest, and most available dwellings in the world. One might suppose that blocks of unburnt brick, moulded out of common clay would soon perish and dissolve. But such is not the case. Your correspondent has seen buildings in South America, that have been built three hundred years, and sound as a roach to-day. The old missions of Dolores and San Jose in California, that have been built over a hundred years, were in good repair up to 1848. The only caution to be observed, is the provision of an imperishable roof, with very wide, projecting eaves to shield the walls from vertical rains, and stone underpinnings, to prevent the absorption of moisture from the earth, and a more beautiful and complete house cannot be imagined. The walls are solid, and furnish no retreat for vermin. They are furnished in any style desired. They can be furnished with plaster of Paris, to imitate marble, or rough cast with sand or pounded glass that will flash all the hues of the rainbow for miles away, when reflected by the rays of the sun.

The *adobe* is a great institution in all Spanish countries. Your *Howadji* has witnessed their manufacture a number of times, and primitive and simple indeed is the process. Ground is selected near the building to be erected, convenient to water. The surface soil is removed from a circle of twenty or thirty feet in diameter, the subsoil loosened up, water and a little cut straw thrown on, and a yoke of oxen, driven by a boy, are set to tramping round and round, until the mud is of the right consistency for moulding, when the laborer with his mould, would commence work, the attendant carrying away and setting the *adobes* on edge on a level yard, precisely like making bricks. These are turned over and dried thoroughly, and placed away under shelter for use. They are made any size desired for the thickness of wall, which is carried up like a brick one, the same being used for mortar. One man will mould enough in two days for a good sized house. The joists, window and door frames, are all prepared beforehand, and when the plates are on, the house is almost completed. There should be a partition wall running through the center to strengthen and tie the side walls. The roof is then put on and the building finished at leisure.

In Spanish countries tiles are universally used. Here the roof may be made of any desired material. Houses made of this material are the coolest in the world in summer, and warm in winter. They are cheap as *mud*, eminently practical, decidedly neat, and we would recommend them to the consideration of all our people.

We had a frost last night which killed all the cotton on the low lands, and blackened the sweet potatoe vines.

WOODENHEIM, Union Co., Aug. 30.

By the above it will be seen that there are draw-



backs to the culture of fruit even in Egypt, and that the price of good fruit is eternal vigilance. Well, Howadji, is not the seat of Pomono in Central Illinois after all the grand flourishes of Egypt. Has the the goddess not been flirting with you after all, and her real lover hereaway. Do let us know about it. We are certainly not so pestered with insects nor half as lazy as you suggest, though we have not forgotten that you descended from the stand and the tripod.

ED.

### Insect Pests Upon Animals.

All of our domestic animals are apt to be annoyed with vermin, which a little of the right kind of knowledge and a little attention will readily disperse. In some periods of hot weather, flies, especially of the *Tabanidæ* variety, are particularly troublesome. They will render a spirited horse unmanageable, and will often drive cattle from the pasture. Of sheep, the "Ettrick Shepherd" says, "The flies were at this time settled in the fold in such numbers, that we could with difficulty see each other. The heads of the sheep were swollen and black, and seemed a scab all over, the flies settled on them like a black cloud. A few were anointed with train oil, and no sooner were they turned amongst the others than in a few minutes not a fly was to be seen." Spirit of tar added to the oil makes it more efficacious, and as the flies will not face these remedies when applied to sheep, horses and cattle should surely be protected by them.

Fleas are very troublesome to dogs. Washing and combing are not without efficacy. Tobacco water may be used, though it frequently poisons the dog. Mr. Blain says, "The tolerable certain cure, I know, is to make the dog sleep on fresh, yellow deal shavings. Rosin and bran in powder may be usefully applied; oil, however, is believed to be a specific.

Lice on horses, cattie, sheep and dogs, are another pest. For these we have invariably found oil a specific. In horses, the prevalence of this filthy vermin, shows want of proper cleaning, although it is oftentimes connected with poverty and mange. In the slighter visitations, we have invariably found that olive oil alone will cause their disappearance from all the above-named animals. Corrosive sublimate may be used, but it requires great caution in the application.

Ticks in sheep are another nuisance. A mixture of tar and turpentine with oil is a speedy and certain poison for them.

Maggots in sheep, sometimes a most fatal vermin, require the utmost care and vigilance. As soon they are observed, the parts affected should be

deprived of the wool, clipped as close to the skin as possible, and the part anointed with spirits of turpentine and oil, with tar, or, with a solution of corrosive sublimate, either of which will prove a speedy and perfect cure.

### A Visit to the Oil Wells.

Having recently returned from a visit to the Oil Wells of Pennsylvania, and supposing that reliable information respecting them will be of interest, not only to yourselves but to the trade in general, I take pleasure in submitting the following remarks.

On entering the oil district at the mouth of Oil Creek, a new comer, who feels an interest other than ordinary curiosity, is struck with somewhat of astonishment at the very large numbers of wells that are bored in every direction. A superficial observation would lead to the belief that, as a consequence, the production of oil is enormous. Careful examination, however, reveals the fact that a large majority of the almost innumerable number of wells the whole extent of the creek are yielding nothing, and never have yielded a single gallon of oil. At the present time there are not over six wells in the whole district which yield by flowing a quantity in excess of 300 barrels per diem, and these are the New or Farrell well, the Caldwell, Dalzell, Sherman, &c., all of which names are prominently before the trade. From inquiry among intelligent and apparently well informed parties on the creek, I ascertained that prior to the time when the Farrell Well was "struck," the total production of oil per day was estimated at 4,500 barrels. At the time when these enquiries were made, New or Farrell Well was yielding 2,800 barrels per day, and yet no one estimated the total product at over 5,000 barrels, which is explained by the fact that the Farrell well has "tapped" various small wells in the neighborhood, and also the Caldwell well, which had always been yielding from 1,300 to 1,500 barrels. This latter well at the time referred to was reduced to about 400 barrels, and is since reported to have fallen off to 100 barrels. Several cases were mentioned to the writer, of wells that had yielded by flowing and pumping from 40 to 150 barrels per day that had been completely drained by the Farrell well.

Hundreds of wells are being bored in every direction, and from this fact it is argued by many persons in the eastern markets who are entirely ignorant of the premises, that in a short time the supply of petroleum will be doubled or even trebled. A few words will set at rest that fallacy.

The history of well boring, from the very inception of the business, has been that not over one well out of every fifty that have been bored has yielded oil. The boring of a well is not the simple task that many suppose; it costs from \$900 to \$1,300, and takes from two to five weeks to accomplish the task. Many parties will abandon the task at a depth of 300 feet, if there are no signs of oil; others will toil fruitlessly on to a depth of 600 feet; and one instance was given in person by a man who bored to the depth of 900 feet and "struck" oil, but it was at too great a depth to permit its flowing or being pumped. The boring of wells is generally given out on contract at about \$2 per foot.

I could consume much more space with many interesting details than you could possibly give me, and I must therefore conclude with a short summary; first in its production; secondly, as to stock on hand.

It is now an established fact that to secure even a minimum supply of oil, new wells must from time to time be "struck." There is a steady decrease in the yield beyond all doubt, as at this time in the preceding year the production reached 3,500 barrels per day more than is now obtained. Wells are gradually giving out entirely, and others of the small flowing wells have to be pumped to secure any quantity whatever; and as a general thing the yield of the pumping wells is extremely insignificant, being ascertained upon inquiry in numbers of instances not to exceed 10 barrels daily, and ranging from that up to 60 barrels. Owing to the hazardous method of transportation on Oil Creek and the Alleghany River, and the fearfully rough roads over the mountains to Titusville, it is estimated by well informed persons, that from ten to fifteen per cent. of the entire product of crude oil is lost before reaching any point available for shipment or refining.

The stock on hand in tanks both on the Creek and at Pittsburgh is generally put down at less than one-half of the quantity in the same places at a corresponding period of last year; and in conclusion (without any wish to draw deductions from the above stated facts,) I would say that if some of the "legion" who are waiting to purchase oil at 30 cents for free refined will simply take a trip of discovery to Oil Creek, it is not improbable that a radical change both of opinion and of action would be the immediate result.—*Exchange*.

### The Siberian Crab Apple and How to Use it.

The following well written notice of a too much neglected fruit, we copy from the *Iowa Homestead*. In our own grounds this fruit occupies a prominent place.—Ed.

I propose to give your readers a chapter of my experience in regard to the Siberian Crab, a fruit which combines utility and beauty, in a greater degree than any other with which I am acquainted, and which requires only to be better known to be appreciated. The TREE in all its stages is always attractive, and forms a prominent and interesting feature in every collection. With its trim and graceful habit, its foliage of pale, delicate green, its profusion of snow white blossoms, contrasting so beautifully with those of more deeply dyed apple and peach, and finest of all, its slender branches bending gracefully with their weight of fruit, with its bright yellow ground and crimson cheek, the whole presenting the appearance of rubies in a setting of emerald and gold—a perfect gem, whether for lawn or garden, even though the fruit were worthless, which many suppose from its small size. Yet whoever has once tasted its excellencies, will learn no longer "to despise small things." For jelly it has no superior, and for marmalade no equal, for flavoring insipid apples which many are obliged to use in winter.


RECIPE.—To one peck of fruit add three quarts of water, cover tightly, stew gently until half done;

do not stir them. Let them remain in the sauce pan, covered closely, until entirely cold, then strain through sleazy factory, and add four pounds of loaf sugar to five pints of juice; boil until of the right consistence, and you have as nice a jelly as can well be conceived. Age improves it. The fruit can then be sifted, and, with the addition of sugar, form a nice marmalade for tarts or flavoring. One word as to the use of sugar for preserves.

It is the very poorest economy to use any but the best loaf sugar, (coffee is best for tomatoes and some others,) for preserves. The process of clarifying brown sugar reduces it at least two pounds to every eight, and your preserves are not nice at that.—Mrs. M. I. S.

### The Flax Crop.

The flax crop of the United States this year will be larger than ever before raised in this country, and inquiries are made as to the best mode of disposing of it. One of our exchanges advises the farmer, after threshing out the seed, to stack the straw carefully, protect the stacks with boards, or a good thatch, and await the coming of customers, who will appear between this and the close of the year. It is important that the straw be kept dry, otherwise it will rot, and the fibre be destroyed. From present appearances, there is no doubt that there will be demand for every ton of flax raised; and farmers will do well to preserve all their straw in good condition. The preparation of fibre had better be left for those who make that their special business. In view of the increasing importance of flax, consequent upon the suspension of cotton growing, we advise our inventive readers to examine and see if they cannot produce improvements in flax dressing machinery. The field for this class of inventions seems to be a good one.—*Scientific American*.

 Hall's *Journal of Health* has some sensible remarks about taking cold. It says: "The chief causes of cold are two—first, cooling off too soon after exercise; second, getting thoroughly chilled while in a state of rest without having been overheated. Dyspeptics are peculiarly liable to cold, and should avoid draughts and take every precaution against being chilled. This is as important as close attention to diet. As with this class of invalids a cold rarely goes to the lungs immediately, but is only manifested by a severe headache, or an aggravation of all the ordinary unpleasant symptoms of that disease, the cause of the consequent illness is not recognized. Standing on a damp floor after the body has become heated by exercise, as women often do when they are washing—is a source of much ill health, and has been fatal to many women. One very common way of becoming chilled, and taking a severe cold, is by going to a cool place after being heated, or by lying down on a bed or hair-cloth sofa, (one of the most rapid absorbents of heat,) with no covering, after a person had become fatigued by some exer-

tion. The perspiration is suddenly checked, and a severe illness is frequently the result. Cold baths daily, sleeping with an open window and warm clothing, are the most effectual preventives against taking cold. When you know that you have taken cold, do three things: First, eat nothing; second, go to bed and get warm as quickly as possible; third, either drink freely of cold water or some hot herb tea. Bathing the feet in hot water, or placing bottles of hot water in the bed, and getting the feet very warm in that way, are also excellent. If these remedies do not produce relief in forty-eight hours, the cold is a serious sickness, and ought not to be trifled with or to be experimented upon."

From the Journal d' Agriculture.

### Stable Dung—How it Operates.

Stable dung, or farm dung is a normal manure—it contains all the principles necessary for the nourishment of plants; for this reason it is the most certain in its action. It contains all the constituent parts of plants, but not all the same proportion in which they existed in the cereals and fodder; for the entire elements of the crops are not converted into dung, the grains having received another destination, by which a considerable quantity of phosphoric acid has been carried off the land.

Stable dung has also physical action on the soil; it communicates heat to it, and during its decomposition into water, carbonic acid and ammonia, it contributes powerfully to the dissolution of mineral substances. *The effect that dung produces by this physical action is often greater than that which it produces as the food of the plants.* These simple principles, which have just been set forth, explains all the other phenomena.

As plants only draw all their solid nutriment from the soil by the extremities of their radicles, the quantity of nourishment contained in the earth must be much greater than that which is absorbed by one crop.

### The Time to Cut Timber.

A correspondent in the *Scientific American* of March 14th, gives the result of twenty years' observation and actual experience, that timber cut in the months of August, September and October, or after the sap is used up in the growth, until freezing weather again comes, will in no instance produce the powder post worm; that the wood is harder, heavier—as proved by actual experiment—more elastic, durable, and is less liable to crack than if cut in the winter months. He says that February is the worst month to cut most, if not all, kinds of hard-wood timber. Birch, ash, and most all kinds of hard-wood will invariably powder-post, if cut any time after the tree is frozen. He is fully persuaded that nine cords of wood cut in the above-named months, will go further than ten cords cut in the winter months; that the wood will burn clearer, the coals will be more solid, and will retain their heat double the length of time.

To the above I would add, that an old Patent Office Report which I lately examined, recommends the cutting of timber in the fall of the year. I give the above in answer to your correspondent D. G. W.—*Country Gent.*

### Economy in a Family.

There is nothing which goes so far toward placing young people beyond the reach of poverty as economy in the management of household affairs. It matters not whether a man furnishes little or much for his family, if there is a continual leakage in his kitchen or parlor; it runs away he knows not how, and that demon Waste cries, More! like the horseleech's daughter, until he that provides has no more to give. It is the husband's duty to bring into the house, and it is the duty of the wife to see that none goes wrongfully out of it. A man wants a wife to look after his affairs, and to assist him in his journey through life, and not to dissipate his property. The husband's interest should be the wife's care, and her greatest ambition to carry her no farther than his welfare or happiness, together with that of her children! This should be her sole aim, and the theatre of her exploits in the bosom of her family, where she may do as much towards making a fortune as he can in the counting-room or the work-shop.

It is not the money earned that makes a man wealthy—it is what he saves from his earnings. Self-gratification in dress, or indulgence in appetite, or more company than his purse can well entertain, are equally pernicious. The first adds vanity to extravagance, the second fastens a doctor's bill to a long butcher's account, and the latter bring intemperance—the worst of all evils—in its train.—*Ex.*

### Fruitfulness of New Jersey.

Placed between the cities of New York and Philadelphia, and favored with a good soil—to be enriched still further by inexhaustible beds of calcareous marl recently discovered—New Jersey is growing what is known down East as "garden sass," on a large scale. Her farmers are becoming rich in this business. The *Newark Advertiser* says:

They have wisely turned their attention to the cultivation of market produce and fruits, the perishable nature of which forbids their growth in the illimitable but remote West. The result has not only the enriching of those of our farmers who have promptly accepted the new order of things but also of the land which has been devoted to it. Whole sections of our State, which were once barren sands, have been reclaimed and are now converted into fertile fields, bearing a wealth of crops that exceeds anything that has before been witnessed, and we have the promise before us that those portions of our State which are accessible and nearly all of it is so—our now great centres of consumption—New York and Philadelphia with their populous shrubs—will become garden instead of fields and orchards; nurseries and fruit patches instead of woodland and swamp and pine barren.

### Sliding Doors for Barns.

A correspondent of the *Germantown Telegraph* says: "These doors are far superior to the old-fashioned doors, which revolve on hinges. They are opened and closed by means of a rail and several small iron trucks securely attached to the top, are so constructed as not only to close the door effectually against the ingress of rain, snow and cold air, but to be very durable, and, in every respect, efficient. Large doors are formed by one inch matched boards, placed perpendicularly, and crossed by matched strips of the same in a diagonal direction, or from corner to corner, on both sides. These strips are so put on as to represent the sheathing often seen on fine houses, being about six inches in width, and covering the entire surface. It will be seen at once that three thicknesses of matched boards, securely nailed and thoroughly painted, besides being so hung as to obviate effectually all possibility of sagging, as is the case with doors of ordinary construction and workmanship when hung in the usual way, must secure an article of great efficiency and of an almost indestructible character. The labor of opening and closing these doors may be performed by the merest boy, and in wind weather they are not slamming and endangering not only their own fastenings and fixtures, but the lives also of all by whom they are approached. The old fashion of placing the trucks at the bottom is anything but desirable, as the former is liable to be clogged by snow and ice; but when it is placed at the top, no obstruction can possibly intervene from this source; the door glides easily along the rail, and never requires to be forced open by main strength. Small doors for the tie-ups, sheds, out houses and other similar buildings, are constructed in a similar way. They are much cheaper than a panel-door, to which they are preferable for all purposes where strength and durability are desired.

### Turning Large Cheeses.

The editor of the *Ohio Farmer* has been out among some of the Ohio cheese men; among other sights was how they turn the big cheeses. He says:

In his curing room, Mr. Cox uses, as supports for his cheese, two strings of scantling, ten inches apart; on these scantling stand the cheese, each upon the inverted cover of a cheese box of a size a trifle larger than the size of a cheese. When the attendant goes to turn the cheese, she takes another cover of the same size, puts it on the top of the cheese to be turned, then with one hand on the top of this cover, and the other hand at the bottom cover, she flops the cheese over, with only the strength of a child, since, when the cheese is tilted up a little to one side, the opposite side bal-

ances down between the two scantling, and the cheese goes over as easy as turning a pair of waffle irons. Another and greater advantage of this method of turning cheese, is that there is no danger of bruising or breaking the corners in turning, as they are perfectly protected by the rim of the cover. This mode of handling is equally applicable to cheese on shelves, but in that case you do not have the advantage of self-balancing, the same as on stringers.

### Be Your Own Right Hand Man.

People who have been bolstered up and levered all their lives are seldom good for anything in a crisis. When misfortune comes, they look around for some body to cling to, or lean upon. If the prop is not there down they go. Once down, they are as helpless as capsized turtles, or unhorsed men in armor, and they cannot find their feet again without assistance. Such silken fellows no more resemble selfmade men, who have fought their way to position, making difficulties their stepping-stones, and deriving determination from their defeat, than vines resemble oaks, or spluttering rushlights the stars of heaven. Efforts persisted to achievements train a man to self-reliance; and when he has proven to the world that he can trust himself, the world will trust him. We say, therefore, that it is unwise to deprive young men of the advantages that result from energetic action, by "boosting" them over obstacles which they ought to surmount alone. No one ever swam well who placed his confidence in a cork jacket; and if, when breasting the sea of life, we cannot buoy ourselves up and try to force ourselves ahead by dint of our own energies, we are not salvage, and it is of little consequence whether we "sink or swim, survive or perish."

One of the best lessons a father can give his son is this: "Work; strengthen your moral and intellectual faculties, as you would strengthen your muscles by vigorous exercise. Learn to conquer circumstances; you are then independent of fortune. The men of athletic minds, who left their marks on the years in which they lived, were all trained in a rough school. They did not mount their high position by the help of leverage; they leaped into chasms, grappled with the opposing rocks, avoided avalanches, and, when the goal was reached, felt that but for the toil that had strengthened them as they strove, it could never have been attained."—*Scientific American*.

### Extensive Sugar Cane Works.

E. W. Nason & Co., of DuQuoin, Perry county, Ill., have planted two hundred acres of cane, and are putting up a mill and apparatus capable of taking off three or four hundred acres. The works are located in the vicinity of extensive coal mines, where fuel will be abundant and cheap. The company will introduce and test several new processes in the treatment of the juice, the result of which we shall watch with interest, and report to our readers. The cane in that vicinity has suffered from the drought, and is backward, but there is time enough yet for the development of a good crop if the remainder of the season should prove favorable.—*Clark's Sorgho Jour.*



From the Scientific American.

### Sustaining Animal Life.

The life of an animal may be described chemically as a process of oxidation; the tissues of his body are continually undergoing combustion; he is constantly breathing out carbonic acid gas, and thus deteriorating the ocean of air at the bottom of which he lives and moves; so that, were not a counteracting influence at work, he would, during each moment of his existence, be working his own destruction. This counteracting influence is exerted by vegetables, whose life is chemically characterized by a change opposite to that of the animal; that, namely, of deoxidation or reduction. Animals take up oxygen, and give off carbonic acid; plants reverse the process; they take up carbonic acid and give off oxygen, and thus the composition of the atmosphere is maintained in equilibrio.

The animal derives its power from the forces locked up in the vegetable organisms which constitute its food, and of which it builds up its tissues. The animal cannot create force; he can only direct its application; he cannot move a muscle without a certain given quantity of force being changed, without a certain portion of his tissues undergoing oxidation, an amount which is regulated by the grand principle of the conservation of force—so that the total energy which the animal exhibits is regulated by the same laws which apply to the work of the steam or electro-magnetic engine. Every pound of carbon burnt to carbonic acid in the animal body, evolves heat enough to raise the temperature of 8,080 pounds of water 1° Fahrenheit, centigrade, or can produce a mechanical effect sufficient to raise 2,784 tons one foot high.

The source of the power of the animal is the force which has been accumulated by the plant. The animal world cannot continually withdraw energy from the plant, unless the latter receives as continual a supply. The source of this energy is the sun; the plant sucks up or absorbs the rapidly vibrating solar radiations, and stores them up to be given out again in the various forms of energy when the vegetable tissue is destroyed by oxidation. It is only in the presence of the sunlight that the true function of plant life can be exercised. It is the sunlight which, acting on the green coloring matter of leaves, decomposes the carbonic acid of the air into its constituent elements; enabling the plant thus to assimilate the carbon and to turn the free oxygen back into the air.

### Tree Planting.

"Have you never heard of the student who, on being told that the crow would sometimes live a hundred years, bought a young crow to try the experiment?" Yes, indeed, we have heard of him—the irony is excellent—and of Dr Johnson's growl "about the frightful interval between the seed and the timber?" Still, we say, plant trees. They who plant at once, instead of wasting their breath in selfish complaints of the shortness of life, find luxuriant foliage waving over them much sooner than they expected. But whether you live to see the maturity of your trees or not, be benevolent

enough to plant for posterity. Transmit to your children the inheritance of rural beauty received from your fathers, greatly augmented. By all means plant, and plant well, and the result will overpay the labor. And let not your labor end with planting. Feed your trees from year to year with generous food and guard them from injury. And in the words (slightly altered) of an old planter—"What joy may you have in seeing the success of your labors while you live, and in leaving behind you, to your heirs or successors, a work that, many years after your death, shall record your love to your country! And then rather, when you consider how short a time your life is likely to last." If you have country homes to embellish, be content with simplicity. Remember that a great establishment is a great care, and the proprietor is apt to become a slave to it. Let your dwelling place be marked with what planters call "repose." Make them the abodes of comfort and refined enjoyment, places which afford you agreeable occupation, but not oppress you with care.

## Editor's Table.

BAILHACHE & BAKER . . . PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, OCTOBER, 1863.

### Trial of Implements by the State Agricultural Society.

DECATUR, Sept. 22, 1863.

The trial of implements commenced this morning, and has been vigorously prosecuted throughout the day.

The awarding committee consists of A. S. Stedman, of Dixon, S. Graham, of Paris, Uriah Mills, of Salem, A. J. Mattson, of Prophetstown, and M. L. Dunlap, of Champaign.

The entries are as follows:

**TWO HORSE OLD LAND PLOWS.**—Dickinson & Orahood, Clinton, Illinois; Col. John Dement, Dixon, Illinois; Charles H. Deere, Moline, Illinois.

**TWO HORSE SOD PLOWS.**—Dickinson & Orahood.

**GANG PLOWS.**—Jacob L. Runk, Nashville, Illinois; W. L. Black, Lancaster, Illinois; J. G. Robinson, Springfield, Illinois; G. & J. Seibert, Ashley, Illinois.

**TRENCH PLOWS.**—W. L. Black, J. G. Robinson.

**DITCHING MACHINE.**—Greggy & Wiggins, Blackbury, Illinois.

**TWO HORSE CULTIVATORS.**—Gilbert & Hamilton, Kewanee, (G. W. Brown's Patent;) W. D. Dorsey,



Decatur; Barber, Howell & Company, Decatur, (Stafford's Patent;) Pratt & Parker, Moreton, Illinois, (Morton's Cultivator;) Furst & Bradley, Chicago, (Patent applied for;) A. J. Spark, Wyanett; Charles H. Deere.

**CORN PLANTERS.**—James Armstrong, jr., Elmira, Illinois; J. C. Moore, Peoria; G. D. Haworth, Springfield; Selby & Elder, Peoria.

**CULTIVATOR AND PLANTER.**—W. H. Maple, Charitown, Iowa.

**FLOW CULTIVATOR.**—Barber, Howley & Company, (Stafford's Patent.)

**CANE AND CORN CUTTER.**—W. M. Mason, Polo.

**BROADCAST SOWER.**—Warren & Carhart, Fox Lake, Wisconsin.

**CORN AND HAY STACKER.**—W. M. Mason.

**CORN SHOCKER.**—W. M. Mason. |

**COULTER HARROW.**—G. P. Lowrener, Pana, Illinois.

The two-horse cultivators and gang plows, form the chief feature of the occasion, and for the first time, will undergo a thorough trial before the public. The weather is fine and the soil in good condition for the trial, but the attendance is small. The implements, as a general thing, are well made, and of good timber, showing a decided improvement in both workmanship and material.

The first thing examined was the cane and the corn cutter. This is made some like a reaper, cuts a single row, and lays it in gavels ready for shocking. It is drawn by one horse and driven by a man or boy, and will cut six to eight acres a day. It must prove a highly valuable machine. Its cost is against it, being one hundred and ten dollars. For sorghum, it must come into general use. The apron is too short and it cuts too high, both faults can be remedied.

The gang plow came next. Two of these hail from the very heart of Egypt, Washington county. Seibert's plow cut eleven inches each, cost seventy dollars, are well made, easily adjusted, run on two wheels and a castor in the rear, plowed five inches deep a drop of five hundred and fifty pounds as shown by Dymnomoneter.

Black's plows cut thirteen inches, cost forty dollars, are made very light, probably too much so for hidden boulders and strong roots, has a light draft, being only 575 pounds, has wood standards and cast iron wheels, can't plow deep in hard land, being too light to hold it in the ground.

Robinson's is a heavy, strong machine, costs eighty dollars, to which twenty is added for sod and old land trench plow, uses rolling trotters, is not readily adjusted, no cast iron wheels, cuts twelve inches wide, and at five inches deep, requires 675 pounds to draw.

Runk has two machines, decidedly the best of the lot, cost \$55, cut ten inches, each plow; is from Egypt, is strong and well made, easily adjusted and, at five inches deep, draws 550 pounds.

Both the committee and the spectators were pleased with the general features of these plows, yet, from the draft, they show no gain over the common plow, and, at least, save one driver, as they require four horses to draw them. Seibert put on one with three, eight and a half inch plows, but it required some 700 pounds to draw it at five inches deep.

If this trial proves anything, it proves that a single fourteen inch plow, with the driver mounted on a light pair of wheels, would be an advantage, and render the labor of the man less than to walk. With such a rig, a boy of twelve or sixteen could do good work and not wear him down, as is now the case. We trust that some of our inventors will get up a sulky plow apparatus that will be cheap and durable, and to which any of our plows can be attached. We can see little real progress in the gang plow thus far.

#### THE FLOW CULTIVATOR.

Stafford's patent had a trial and gave the most entire satisfaction. It has six small cultivators, and does the work most admirably. For the planting of winter wheat it must be valuable, dispensing with the harrow, but its chief virtue is in the putting in of spring wheat and oats, and to prepare fall plowed land for corn. Year after year the harrow is becoming less valuable, and we should not be surprised to see it dispensed with altogether. With the cultivator and roller we can put in all of the small grain.

Some of the readers of the FARMER may call to mind our prediction that the so much lauded grain drill would go out of date in less than ten years. Has it really gone? We can neither see nor hear of it, it must have been swallowed up by some one of the cultivators, or gobbled down by the iron roller.

The cultivators have had partial trial, which is to be resumed in the morning. The competition is close, as all of them are of great value, differing mainly in case of drop and durability. All do good work.

Many manufacturers are deterred from competing on account of what they esteem too high an entry fee. All of them appear to prefer the diploma to cash or medals, which would have lessened the fees materially. As the Society receives nothing for visitors at these treats, they must either make the exhibitors pay the expense or draw the premiums from the three thousand dollar fund donated by

the State. The manufacturers take this view of it. Entries for the Fair are not charged for, exhibitors purchasing a member ticket which is worth the dollar in admission.

There can be no question that these outside trials are of great value to the manufacture of valuable improvements, at the same time they are not less so to the farming public.

Second Day of the Trial.

DECATUR, Sept. 23.

The weather is all that could be asked, clear and cool. The committee came on the ground at 8 o'clock, giving exhibitors assurance that no pains will be spared in the trial.

FIELD ROLLER.

This was brought on the ground by Mr. C. D. Roberts of Jacksonville, a large grower of sorghum. This roller is of wood staves and bound, made in two sections, is too light, and too large in diameter. Wood must give place to cast iron. Damp earth adheres to the surface of the wood, and the surface being soft, fails to crush the clods, while the smooth hard surface of the iron grinds the lumps to dust.

SHOCKING MACHINE.

Conceive a plasterer's truss three feet high, with a rod for the horizontal cross piece, and you have it. The cost is about a dime. Mr. N. M. Mason was the exhibitor. It is not patented, and is one of those little conveniences that add to the pleasure of farm labor. The committee passed a vote of thanks to the exhibitor.

CORN AND HAY STACKER.

We cannot well describe this machine without drawings, but it consists in an improved derick, which is easily raised, and rope, in place with guy ropes, a boy a dozen years old, by the aid of a horse, can take it to the field and raise it. It must form a valuable implement where hay and other fodder is stacked in the field, and hay pitcher can be attached to it, though the one used is particularly adapted to handle corn stalks. The whole cost is about thirty-five dollars, rope included. Most of the machine can be made on the farm. A similar machine in a small way might be used in loading on the wagon by having a drum attached to one of the wheels. Mr. Mason, of Polo, is the exhibitor.

CORN PLANTERS.

	Cost.
Armstrong's.....	\$40 00
Moore.....	45 00
Silby & Elder.....	35 00
Howorth.....	38 00
McGaffey of Chicago, for check rows.....	35 00

To which is added for an automoton for self dropping in check row or drilling, ten dollars.

All of these machines are good, but that of Silbey & Elder, from its cheapness and substantial make, attracted most attention, though the difference in price was the most essential as all did good work. The McGaffey machine is from Chicago, and came upon the ground very late. It is one of the best, but farmers are not quite ready to give up the check rows, but they will soon do it, when the McGaffey planter will be of value for a drill planter.

PLANTER AND CULTIVATOR.

Maple's patent one horse planter, with three shovels—cost fourteen dollars; a very handy machine for gardeners and small farmers. The planting apparatus can be taken off when it is a three shovel cultivator.

COULTER HARROW.

Shampton, cost at shop twenty-five dollars. This is of little value compared to the Stafford cultivator, for preparing land for seeding, or for covering the seed. As a clod pulverizer it is nowhere with a good roller.

This was followed by the

SEED AND DRILL ROLLER

of W. B. Quarton of Carlinville. The drills are preceded by rolling cutters to open the place for the seed grain, and followed by corrugated rollers, so as to leave the land in ridges and drains, all well enough, perhaps, on low grounds, yet few farmers will be willing to invest in a machine that will sow four feet wide, at a cost of ninety dollars. It pulverizes the soil very well, but is too heavy draft and costs too much. Corrogated rollers have never become popular, though often tried. Drilling wheat is fast going out of date and we doubt a return to it.

GANG PLOWS.

These plows had a further trial but no new facts were elicited in their favor.

TWO HORSE PLOWS.

Deere, Demont, and Dickinson & Orahond, are the competitors.

Demont's plow is all cast steel, double sheer, cost sixteen dollars at the shop, rolling cutter and fixtures four dollars—cuts fourteen inches wide and seven deep. The draft is three hundred and fifty pounds.

Deere's plow is cast steel, and known as the steel clipper, cuts twelve and a half inch holes remarkably easy, and turns a beautiful furrow. The shop price is eighteen dollars—it cut seven inches deep and drew 400 pounds.

The other plow not having a rolling cutter, gave up the contest. There is yet another plow to arrive, and the further trial of plows will be resumed to-morrow. The contest is close, and the spectators are taking sides. The Dixon plow has the advantage in draft, but the Moline does the best work, though the difference is not great. They are the two best plows that we have seen, when we take into consideration workmanship and material. We would not be surprised at a lock in the committee, as to-morrow one of the members leaves. There will be only four to decide the matter, the new one to arrive may change the aspect of things.

BROODEN SOWER AND CULTIVATOR.

Cost seventy-five dollars. Sows six feet, twelve cultivators adjusted to any amount of seed. Sows corn and covers as well or better than a harrow. We do not think it can be used in rough land as the large number of cultivators on the same line of shaft will render it liable to clog. The machine is made in Chicago and very creditable to the manufacturers.

With a good hand sower one man can sow thirty acres in a day, and with a soil shovel two horse cultivator, and iron roller, the work can be done better and almost as rapid. For small farms it will not pay, when we take into consideration its clogging in rough land. The same objection has rendered the old drill of so little value.

CORN CULTIVATOR.

The two horse cultivators were the main features in the afternoon, and as all of them are well made, of good material, and did first rate work, it was no easy matter to figure up which was the very best, all things considered.

The several machines are sold as follows:

Stafford's Patent.	\$42 00
Faust & Bradley's.	25 00
Brown's.	37 00
The Morton.	35 00
Dorsey's.	35 00
Sparks'	40 00
Deere's	35 00

The price, it will be seen, is very uniform. All have shields or plant protectors, to prevent the clods from being thrown on the young corn, and some have extra shovels. It was also demonstrated that nearly or quite all of them can be used to mark out the ground, and to cover the potatoes in planting; and one, at least (Stafford's), can be made to ridge up the land for sweet potatoes. A vast improvement has been made in all of these implements within the past year—in fact, nearly or quite all of these are new machines, the patterns for those intended for the year 1864. Towards the close of the trial, attention appeared to centre most on the Stafford, made at Decatur.

The day was closed with a trial of Dements' Double Shovel Plow, to which is attached a shield, after the plan of the two horse cultivator. It attracted no small attention, and pleased both committee and visitors. The cost of adding the

shield is about a dollar and its use enables the operator to work close to the row of corn or other small plants.

THE FAIR GROUND.

A half hour in the grounds with John Taylor, one of the Directors of the grounds, was a pleasant surprise. The grounds are naturally the best in the State, and have been made very complete by art.

One thing that has always been wanting in abundance, at all our State Fairs is here in the most lavish supply, and that is pure spring water, running out from three large springs, all of which have been curbed and spouted in the best manner. But little remains to have all things in readiness for the Fair.

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## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

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**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

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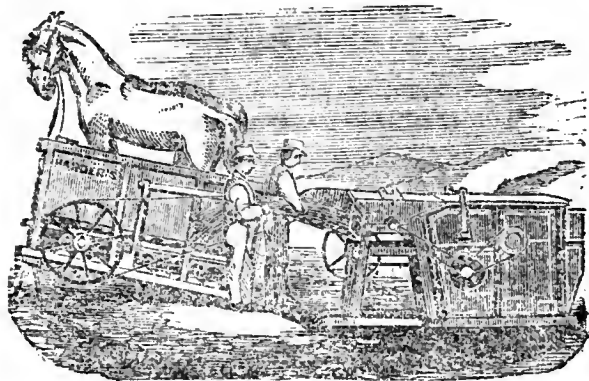
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Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

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May 1'63.1y

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WAUKEGAN, ILL.

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DES MOINES IOWA, Jan. 1, 1863.



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Apr 2m

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March 1, 1863.tf

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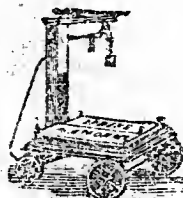
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August, 1862.tf



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The Illinois Farmer,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, - - ILLINOIS,

BY

BAILHACHE & BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

It is not necessary that the club should all be at one office—we send wherever the members of the club may reside. The postage on the FARMER is only three cents a year in the State of Illinois, and six cents out of it.

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Subscription money may be sent at the risk of the publisher.

Exchanges and communications for the eye of the Editor should be addressed, ILLINOIS FARMER, Champaign, Illinois.

All business letters are to be directed to the publishers, Springfield.

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Ten cents a line for less than a square each insertion.				

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Springfield, Ills.

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STOCK RAISING,  
HORTICULTURE and POMOLOGY,  
And DOMESTIC ECONOMY generally.

The Publishers' aim will be to give such information and assistance as will enable the farmer to grow the largest crops with the least expense, and what is equally important to assist him in securing the

LARGEST PRICES

the market affords, by giving such reliable information that is obtainable concerning the markets at home and abroad—the cost of forwarding produce to market, and other attendant expenses—thus enabling the producer to take advantage of the conditions of the market in dispensing of his produce.

FORM OF PAPER.

The paper consists of 16 pages large quarto, making a convenient size for binding and reference. A full index is given at the end of each six months.

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About five pages are devoted to General Agriculture; one to two pages to Horticulture; one page to Literature; two or more pages to General War Miscellany and News; two pages to Markets and Record of Season, and asking and answering questions, and general editorial items.

A portion will also be devoted to Advertisements of such character as is appropriate to an Agricultural paper.

DR. GEO. H. DADD.

This celebrated Veterinary Surgeon will contribute regularly to the FARMER, giving especial attention to the answering of questions and giving information upon matters interesting to stock growers.

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# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., NOV., 1863.

NO. 11.

## The Illinois Farmer,

DEVOTED TO THE

FARM, THE ORCHARD AND THE GARDEN,

PUBLISHED BY

BAILHACHE & BAKER,

SPRINGFIELD, - - - - - ILLINOIS.

M. L. DUNLAP, Editor.

All business letters should be addressed to the publishers.

EXCHANGES and all matters pertaining to the editorial department, must be directed to ILLINOIS FARMER, Champaign, Ill., as the editor resides at that point, and is seldom at the office of publication, from which he is distant over eighty miles.

\* \* For terms see prospectus and special notices in advertising department.

### November.

Chill November's surly blasts  
Lay field and forest bare.—BURNS.

Instead of a poetical hymn, Jack Frost has taken one of sober prose, by a premature closing up the dog days and wrapping the last of the litter in a mantle of frost. To-day is the sixth of October, and we have never before seen during this month severer frost than covered the ground this morning, and it is seldom here that the frost at this date more than nips the leaves of the sweet potatoes, or droop the leaves of the Dahlias, and yet this year we have had frost nearly or quite every month, doing more or less damage. The season has been a most remarka-

ble one for the whole of the North West, proving a very indifferent crop year, perhaps the poorest for the past twenty years. In some localities particular crops have been good. In the way of fruits there are some singular features, most puzzling to the orchardist. In the fall of 1862 the late and succulent growth had all the appearance of that of 1854-5 that proved so disastrous to nearly all of our orchards, not only cutting off the crops of fruit, but destroying hundreds of thousands of trees in the orchard and millions in the nursery. So close was the similarity that we entered the winter with fear and trembling, knowing that if the winter should prove like the former, we should again have to mourn over a like, though a more wide-spread disaster, but fortunately the winter was mild and the crop of fruit at the north part of the State is nearly or quite quadruple of any former year.

This year the growth of tree is unusually meagre, and the branches loaded with fruit buds, what effect the premature frosts may have on them we know not, but reasoning from experience we think the whole thing is to be summed up in the condition of the winter, and it is to this that we must turn our attention. If we can winter our trees in an equable temperature, they will come out all right. It is doubtless the sudden changes that act so disastrously on

them. We are now preparing about a mile for willow fence ~~to be~~ screen, in addition to the two miles of maple belts now becoming of some value in the way of a shelter.

The corn crop is seriously damaged by drouth and frost in almost all parts of the State, and especially here. On the first of last month we estimated the crop of this county at fifteen bushels per acre before the frost, and that the frost would reduce that small amount one half. At this writing we would not give five bushels of old corn to the acre, taking the whole county together. The stalks are of little value for fodder. Large quantities are being sold for stock feeding in the field by herding, at from one to three dollars an acre. We have ten acres planted about the 20th of May, that will sell for about two dollars per acre to cut up for fodder, as we never allow cattle in our stalk field to poach up the ground. The remaining part of our crop we have cut up and shocked for feed, and which will at best make indifferent fodder. Old corn is sold for seventy-five cents per bushel on the farms for home use, and Timothy hay on the farm at nine dollars a ton for shipping. We consider these prices *panicly* and not sure to be sustained, though most people think corn will go at a dollar. We are fortunate in having a good stock of old corn on hand, not by any particular wisdom or shrewdness on our part, but for the simple reason that we could not get it shelled during the summer, tho' we did get off some six hundred bushels in June, at what we then thought good rates. We have some of the crop of 1860, in as good order as when first gathered, as is that of '61 and '62, all of which would make excellent seed.

The cribs cost about one hundred and fifty dollars, not half as much as some of my neighbors growing about the same quantity of corn have lost in rotten corn; and now from the advance in material and labor have nearly doubled in value, making a pretty little profit for taking good care of ten cent corn.

A farmer of our acquaintance in Whiteside county has several thousand bushels of ten cent corn, embracing portions of four crops, for which he made a large outlay in good, well covered cribs, on which he will make a small fortune.

The corn crop of this year being at best soft, will not stand much rain, and we trust former experience and the present high price will induce every farmer to see that when husked, it be housed from the weather.

We think there is less corn in the State of the old crop, than is generally supposed, though an abundance for home use, and we see no good reason for such high prices as is now foreshadowed. As we have little to sell, and as that little will be wanted for seed, we have no interest in the market save a general one, that effects the whole country, and therefore take a dispassionate look at the present state of things. Many farmers are holding for a dollar—we can only hope that this class of men will hold on, until the price comes down to fifty cents, a very common occurrence in the grain market.

There are indications of tree planting at this writing, and we again take occasion to say to our readers that all autumn set trees should be banked up, at least a foot high, for the purpose of holding them in place against the winds, to prevent them from being thrown out

by the winter frost and to guard against an early drouth that sometimes occurs at the time starting in the spring and which is often severe on newly set trees. Another thing, in setting apple and many other kinds of trees, is to cut them back severely, if the growth has been good, we thin out the branches and then cut all of the last season's growth back to three or four buds. The May cherry will only need thinning out.

Potatoes should be put in close bins, or in pits out of doors. Beets keep much better in pits than in an open cellar; do not cover too deep at the start or you may heat them; we always place the pits above ground on account of drainage. A good way to preserve cabbage is to pull up the plants, lay two rows of heads together, head down, and cover with earth. After the ground freezes slightly, cover with straw or litter, so that the cabbage will not freeze but little; in this way it will keep good, become sweet and crisp, and the heads will continue to grow. Our farmers grow too little cabbage, it being considered an uncertain crop. This can to a great extent be remedied.

We cannot too warmly press attention to the value of autumn plowing, and we hope every farmer who has not tried it will not fail to do so; to those who have given it a trial we need say nothing, for most of their grounds are already turned over.

We would call attention to a trial of the autumn planting of sorghum; we have no inconsiderable confidence in its value. A quarter or half an acre will suffice, and cannot cost much, at all events. If it should succeed it will materially lessen the cost of this crop to the farmer.

### From Home.

Frosted Corn—the Drouth—Sorghum—a Morning Walk—  
Rose Hill—on Change—Our Old Home.

Last evening the Champaign County Fair closed its four days' session, and to-day, 12th September,\* we step on board of the train for Chicago. All along the road frosted fields of corn to the right and to the left and far away over the prairie the dead leaves reflecting back the autumn sun.

The summer drouth has made its mark on all late crops, the potatoes are light, the sorghum is spindling, and the blades hang loose on the green stalks which have in spite of the frost sent up their heads, and will after all make a good show of molasses. Sorghum is not all killed, though much damaged, it being much more hardy than corn.

At Chibona a cow encountered the engine, but like many other belligerents commencing the difficulty had the worst of it, though in the contest managed to throw the express and baggage cars off the track. As Stevenson predicted when he launched the first locomotive on his tram road, "if a cow come in contact with the new motor it would be very bad for the cow," and so it proved, for her cowship had every bone in her body mashed fine, and her fat carcass thoroughly pounded into tender steak, much to the regret of her Hibernian owner, who was much incensed at the stupidity of the "doomb brute in crossing the road just fornenst the engine."

One hour and ten minutes and conductor Muchman gave the word "all aboard." At Kankakee the shades of evening shut out the cornfields from view, and at ten o'clock we reached the city. A friend met us at the depot,



and away we went through the streets, now nearly deserted, save here and there a traveler like ourself from some of the evening trains. Tired and weary from the week's labor, the city on Saturday night lay down to repose, save the orgies of lager and the spirits of rye and corn which like the eternal fires never sleep even in a great city, and from the dens where these demons hold their nightly carousals in a great city the gas flashes up into the streets to show the belated traveler that the infernos are still in running order.

On Sunday mornings the city is a great sleeping hostilrie. You go into the street, there is no sound of hammer, no hum of fast revolving wheels, no clanking of great forges, no short breathings of the pent up steam as it leaps from the escape pipe. No rolling of thousands of vehicles over the pavements, no hurrying to and fro of business men, no laggard walking of gaping adolescence, no stately promenading of wide sweeping crinoline. The news boys pass through quiet streets, modestly calling "here's the Sunday papers, with latest news from Charleston, the Potomac and from Blunt who is stirring up the hyenas in Hark-hand-saw." The milkman comes ringing his bell to notify the servant girl of milk(?) for coffee. Our morning's walk has taken us out of the long ranges of brick and mortar, and we are in the midst of Kilgubbin, sacred to bad whisky, fights and squalor. Here reside the "friends" of those high in office, from this district come the men first at the polls, the first and last to cast their vote, and from among whom the "guardians of the nights" are drawn. We take a sad look at the wretchedness that looms up before us and slowly turn our

steps toward breakfast. Soon the merry peal of bells call the city to worship, when presto, the side walks are lined with well dressed people answering to the call.

In the afternoon we take the train for Rose Hill, "God's acre," some seven miles distant, among the gravel ridges that border the lake. Five coaches are filled with those who could do homage to the departed. The cemetery is on a commanding site, and in a most lovely place. There is just enough of the forest "oak openings," to allow a rich turf of blue grass, with which the whole site is carpeted. The grounds are well laid out and are fast assuming form and comeliness. A large amount has been expended this past summer. Among the improvements is a new entrance lodge, that will add much to the substantial appearance of the place. A new green house for the propagation and wintering of plants for the several lots is in course of construction.

Without a visit to one of these cities of the dead we can have but little idea of the large sums expended on them. Here and there are family groups, training the plants or placing flowers on the tombs of the loved and lost. We leave the grounds convinced that the plan of a special train to these grounds on the Sabbath must have a good influence on all those who avail themselves of it. You have the country all to yourself—sordid commerce is not crowding the streets and highways, and a feeling of repose comes over you as the train leaves you to the city of the dead, where we shall all one day go to make a long stay.

On Monday morning, so soon as old Sol had sent his floods of light over Lake Michigan, the city began to arouse from

its Sabbath repose. The sound of steam came from all quarters, and at seven o'clock, the sound of hammers, of forges and a thousand miner notes float out upon the air, the whole city is astir, men, women and children come from every quarter, and just before nine o'clock thousands of the latter are on the way to school.

At eleven we go on Change, that is to the rooms of the "Board of Trade." In this room between the hours of eleven and one, hundreds of thousands of dollars of the agricultural products of the Northwest are disposed of daily. Several hundred dealers in one large room, mixed higly, pigly, driving their bargains, makes a small babel of itself.

A ride of sixteen miles and we are at our *old home*, now embowered in bending orchards, rich in ripening fruit. The old Flemish Beauty pear trees have bowed their heads with their usual offering, the more stately Buffums stand firm, and though loaded to the utmost stand up bravely like a sentinel at his post. The old Lombard plum tree is never found wanting in delicious fruit; some say that it is proof against the curculio, but we have no such soft misgivings, and credit the poultry for the exemption. Our old favorites are again laden with apples, Keswick Codlin, Cooper's Early White and Porter, Ramsdells' Sweet and Late Golden Sweet assist in making glorious aids, and the trees always bend with tempting fruit; but sweet apples do not sell readily, and they go to the cider mill, which swallows up the windfalls, making good returns in the way of small change. Two bushels of sour windfalls and one bushel of sweet apples make a rich cider, that is selling at the press at fifteen cents a gallon, or at the

rate of fifty to fifty-five cents a bushel for the apples; in the city the price is twenty cents, while common cider is about half that price; so much for an excess of sweet apples. Do not be afraid to plant sweet apples, they will be wanted.

The Stanard, Rambo, Jonathan, Snow, Belmont, Summer Queen, Wilkins' Favorite, Autumn Swaar, Early Pennock, Holland Pippin, etc.; are very full. For cooking apples, Codlin, Cooper's Early White and Holland Pippin are the most popular and command the highest price.

The Isabella grapes are loaded this year with fine clusters, though the frost has injured their flavor.

The May Cherry, here called Early Richmond, is all the go, and every tree is set that can be obtained. We heard wonderful stories of the profits from this fruit; one man sold one hundred and twenty-six bushels from a young orchard of six hundred trees, four years set, at an average of over four dollars the bushel, that is over a hundred dollars an acre. Next year he thinks it will double the crop. Of course this pleased us, for we have the same number of trees two years set, to which we shall look forward with pleasure.


The potato crop is about an average one.

Barley and oats have been good, wheat middling, and corn nowhere, with the frost after it.

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\*The above article was written and intended for the October No. of the *Farmer*, but by some mishap was not received in time.

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 The first snow of the season fell on the 22d ult., and was nearly as heavy as any one fall of snow during last winter.

### Grape Culture.

We now close another year of experiment in grape culture, in which we find some new features, several of which culminated at the State Fair.

First, we will speak of the culture of Dr. Schroeder, of Bloomington. The Doctor in his blue blowse was on hand to explain his practice and theories, is very enthusiastic, and at times eloquent, especially when dilating on Norton's Virginia, which he places at the head of the list of wine grapes. He says it is hardy, very productive, free from rot and mildew—all very important points in a wine grape, to say the least. For an early grape, Hartford Pacific is esteemed highly. For a late table grape, Concord is much extolled as the grape for the million. Herbemont is called by the Doctor a good grape of small size and deep blue color; productive, but less hardy than Isabella, and of course must be layed down and covered with earth or litter. Garrigues is one of the Doctor's table favorites, of small size, hardy and productive. Diana is well spoken of; North Carolina Seedling, is another of the Doctor's pets, being productive and hardy. Judging from the large quantity of fine bunches of the Catawba in the Doctor's collection, he will not at once abandon its culture. Our readers will recollect that at the winter meeting of the State Horticultural Society, the Doctor stated that he could not succeed well with the Delaware, and that he held it in no high esteem as a profitable grape. Another year has not changed his views in regard to it, though he confesses to a better growth as plants get older. The American Black Hamburg has large berries, bunches shouldered and compact, is as hardy as the Concord. It is a fine showy grape, of which we shall hear again. The Isabella, for a market table grape ranks high in the Doctor's vineyard.

When we take into consideration the location of Bloomington, we must concede that these experiments are of no small value, as they can be fully relied upon; the Doctor being a practical man, without a disposition to grind his own axe at the expense of his friends.

The collection of Mr. Chas. H. Rosensteil, of Freeport, was also a good one, and like Dr. Schroeder's was graced with the ribbons. His Isabellas were particularly fine and well grown. In the Delaware, J. H. Stewart, of Quincy, took the lead, and proved most conclusively that this very fine grape can be grown in Adams county. We hear a deal about our propagating of this variety, and here we have it: vines twenty feet long in a season, with such snug compact bunches of fruit on the bearing wood of the same vine, that one might

think Bacchus had taken it in special charge. For a time we gazed in mute astonishment at vine and fruit—a nudge at our elbow and a simple question from our friend Stewart, “do you see it, and have you not been too fast in calling the Delaware a slow grower?” Stepping to the collection of Dr. H. Chaffee, of Tolona, we compared his Delawares with those of our Quincy friend, and called attention to the marked difference in size of bunch and of berry. Dr. Chaffee resides but six miles from us, and is one of the most careful gardeners, but has not been able to make more of the Delaware than ourself.

To those who want strong healthy vines, that show no signs of effeminacy, we commend them to Stewart. That we shall be able to grow this grape in all part of the State, we firmly believe, but to do so we shall have to learn something more in regard to its wants of peculiar properties of soil. This matter of over propagation we are disposed to call all bosh, but to settle it have ordered a small lot of thrifty plants of Stewart. We have fruited the Delaware this season for the first time, and notwithstanding the drowth have had a better growth than usual. The fruit is of the highest excellence, and suited to the taste of a large majority of people, but thus far, its growth has not given satisfaction, except in particular locations; Mortier of Cincinnati, and Stewart of Quincy are among the most successful. We are inclined to the belief that it requires a highly calcareous soil, and that it will need lime or bones in such soils as ours. The soil at Quincy is a stiff calcareous, well drained clay soil, on which all grapes and fruits do remarkably well. If this is the case, this must prove the grape for the basin of Egypt and on the south slope of the grand chain among the outcrops of the mountain limestone, as well as at Freeport and the region of Trenton limestone at Rockford, and along the outcrop of the Niagara group on the Illinois, Fox and Kankakee rivers. This will give it a large range in this State, enough one would suppose to satisfy its friends. Next year we shall put this grape in the vineyard for further trial, but we confess with no very sanguine hopes of large profits.

Dr. H. Chaffee had the only lot of foreign grapes grown under glass, but as it required half a dozen bunches of each variety exhibited, he only entered for the best late grape. His grapes were well grown and attracted considerable attention from the great size of the bunch and berry. We do not think it will pay to grow grapes under glass in this part of the State, as most kinds ripen perfectly out of doors.

#### MEAD'S SEEDLING.

Mr. I. A. Pettingill presented a grape under this

name which has set the fraternity by the ears. It so closely resembles the Catawba that every one at once pronounce it that grape, but Mr. P. claims that it is not, that its history as a seedling can be clearly traced, and that it has certain characteristics that make it at once a marked and valuable grape:

1. It cannot be grown from cuttings in the open ground.
2. It is free from rot and mildew.
3. Its bunches are larger on an average than the Catawba.

If it is not the Catawba, it presents what has never before been brought before the public: two fruits with growth of vine and leaf so identical that good judges at once pronounce them identical. Mr. P. is a gentleman of high standing, of close observation, and we think above any intention to deceive. He has not the exclusive stock of this grape, and therefore has no monopoly of it, Mr. J. Huggins of Woodburn, has had the grape for several years, and confirms the statement of Mr. P. Under these circumstances, we recommend a trial of this grape, for should it prove free from rot and mildew, though otherwise like the Catawba, it will prove to be a valuable grape. In fact if the Catawba was free from rot and mildew, grape growers would not trouble themselves much after a better kind. It will require some years to prove the facts in regard to this new grape, and the worst can be that the cultivator will have the Catawba. We do not recollect whether it is claimed to be more hardy than the Catawba or not, but this grape needs no protection at Bunker Hill. We did not learn the price at which this grape is to be sent out, but only that a large stock of the plants grown from single eyes in pots are ready. We suspend judgment for a personal trial.

We have a reason for not giving the premium in this connection, to which we will refer in our next issue.

Several other parties had grapes on exhibition, but in small amounts; among them Rebecca, Diana, etc.

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### Lands of the Illinois Central Railroad.

These lands lie along this great throughfare for seven hundred miles, commencing at Lake Michigan and running south to Cairo; thence doubling back on its track to Centralia, when it diverges northerly, to tap the commerce of the farther north. Passing through nearly four hundred miles of latitude, embracing a great variety of soils, of elevations, of water sheds, of moderate villages and of far stretching prairie, rich in all the ele-

ments that make the soil almost inexhaustible. From the north, the region of pasturage and the spring crops reach as far south as Mattoon and at Pana, when we reach the bosom of Egypt, that will one day be appreciated, when the nature of its calcareous deposits shall have been better understood.

As we go further south, and cross over the Big Muddy river, we meet the timber belt and range of hills that are becoming the seat of Pomona, with a climate more bland than that of Richmond, and with natural highways that furnish cheap transport for the peculiar products of this region.

It is now conceded that the prairies and woodlands distant from the rivers, are the most healthy and valuable for farm purposes; but until the construction of this road, were inaccessible to market. Under the present administration of the land department, these lands are being rapidly sold, and the time cannot be distant when it will present the most wealthy portion of the State.

During the years of '55 and '56, the land department caught the spirit of speculation, and so advanced the price of land, and sold such large tracts to individuals, that the interest carried thousands over, and the bubble bust. For several years, this was followed with poor crops and low prices, to that extent that the country came to almost a stand still.

The liberal policy that has allowed these large purchasers to give up part of the land and to apply the payments on the remainder, has had a most beneficial result, and is being felt through the whole length of the line of road. It was but an act of common justice, but the manner of doing it has enhanced its value; it has given confidence in the good intent and fair dealing of the present manager, that will go far to make future sales.

From the large sales of the present year, we are led to the belief that the prices have been satisfactory.

We think there has been an error from the beginning, in regard to the credits in the sale of these lands, and the past eight years have confirmed our former views. Had the sales been confined to half cash down and the remainder on long term, or all cash down and limited to actual settlement, more land would have been sold, more farms would have been opened, more money would have been received for lands, the business of the road would have been augmented; for as a general thing, a more wealthy class of farmers would have been attracted hither. But perhaps it is as well for the company, as all parties interested have been taught by experience, and now more solid progress will be made.

The new farm machinery has materially enhanced

the value of these prairie lands, and they will soon be sought after; not so much by the small farmer of limited means, but by the farmers with capital, who have the funds to put large farms in operation.

The cost of putting a farm of two hundred acres in first class condition, is now materially enhanced, but when this is done, the amount of manual labor is much lessened, and the nett cost of preparing a crop for market, is on the whole, materially lessened. We are taking new lessons in farming-made-easy, but these lessons are only to a limited extent applicable to these prairie lands, thousands of acres of which now lie uncultivated.

When this new condition of things become fully known, we shall see a rush for all of these lands, as well as for the alternate sections now held by speculators. This latter class will be compelled to sell, as the taxes will make fearful inroads into the pockets of their holders.

The railroad lands being free from taxation until deeded, the whole burden of taxes fall on the alternate sections—for roads, for schools, for houses, for county and State purposes, making an aggregate that will touchingly appeal to the pioneer to purchase, and the price must rule much below the railroad lands before they will sell.

The lands along the Chicago Branch have been much sought after the past two years for fruit growing, and in a few years the great supplies of fruit for Chicago and the north will be mainly drawn from this route. This branch of business offers peculiar advantages to farmers with small means and large families, to come here to engage this business. Strawberries, raspberries, blackberries, currents, cherries and plums, which require a large amount of light labor, is just adapted to such farmers, and will be found exceedingly profitable, as from the singular fact that each part of the line must take its turn, and for the time being monopolize the market. Competition from other points is out of the question, and this narrow belt of country, say a strip of thirty miles in width, beginning at Chicago and extending at Villa Ridge, is without any serious competition.

The grower of strawberries at Villa Ridge is sending his fruit to market the first of May, while those at Chicago are just beginning to bloom. Gradually the picking travels north, keeping up a constant supply, and more than doubling the yield of the usual season. Strawberries in like manner are followed in turn by other fruits, and the northern markets are filled with the small fruits from May to September. In August, peaches begin to reach the market, and the same round is gone through with them.

In no part of the country can there be such fa-

cilities for fruit growing. Just now the grape market is supplied from Cincinnati and Kelly's Island; but this state of things cannot last. The main supply of grapes must go over the Chicago Branch of this road.

The Isabella and Catawba have not done well on the fruit hills of Egypt, but the Delaware and others promises well, while all through the prairie portion; nearly all kinds of grapes do well. It cannot be long before whole car loads of this delicious fruit will be daily sent north.

We are no particular advocate for the extended culture of wine grapes, but this will be attended to in due season. As far north as Bloomington, Dr. Shroder is demonstrating the profitable nature of this business. While wheat, corn and other important farm crops can be grown equally well on this line of road. We have, in addition, a monopoly of the small fruits—of cherries, of plums, of peaches and of garden vegetables. Taking all of these things into consideration, there is good reason for the railroad company to hold their lands between Chicago and Cairo at a fair price, for the present advantages that cannot fail of being appreciated within a short time.

### Trial of Implements.

The week previous to our State Fair at Decatur was devoted to the trial of agricultural implements. The number presented was not large, but valuable, some new, and most of them for the first time at a public trial. The premiums were gold and silver medals. No second premiums. The entry fee for gold medal, \$20; for silver medal, \$5. We think the entry fee had the tendency to largely lessen the number of valuable implements on hand. The exhibitors are taxed for entry fees, and having to provide teams and pay current expenses makes, altogether, a bill that the profits will not warrant. It may do for the successful machine, but holds out no inducements to the great mass of manufacturers, or those holding local rights. The gold and silver medals are not very expensive affairs for material, yet the dies and engraving cost no small sum. We would prefer to pay some ready penman to get up a good off-hand diploma, and to make three awards, as follows: Commended, High Commendation, and Highest Commendation. As the Society receives three thousand dollars from the State Treasury, it is no more than fair that the expense be paid by the Society, for there is no branch of rural pursuits that need more encouragement than that of agricultural implements. We therefore suggest, that the Society extend their usefulness in this direction. And as we do not think the mode of trial the best, we recommend a change that we think



must challenge attention. In the first place, set a time and place to plant a field of corn, say three acres for each corn planter, not later than 5th to 10th May. Let the two-horse cultivator men furnish a machine to cultivate three acres each throughout the season, and have a committee to examine it, from time to time, to note the amount of time required and appearance of the work, and at maturity of the crop have the field carefully measured. In no other way can a thorough test be made. The Reapers and Mowers have had a trial, and satisfied every one that there are several superior machines, so nearly balanced in value that good judges cannot agree which is really the best; but genius is at work remodeling these, valuable as they are, and another season these new features will need a public test of their value. It is certainly no object to have a crowd of people at these trials, though all who take a sufficient interest should be allowed as thorough an examination as the nature of the trial will admit. The gang and sulky plows are not as yet perfect, and these will also need further attention. So of seeding machines, plows, harrows and rollers. Many of these could have a trial the week previous to the Fair, and in its vicinity. Decatur presents ample facilities for all these trials for the coming year, is easy of access, with a variety of soil and large, well cultivated farms in the neighborhood.

We do not think that it is asking too much of the Society to extend their usefulness in this direction, so as to give encouragement to this department without imposing too great a burden on new implements just beginning the struggle in the field of usefulness. It should be borne in mind that the value of all these new improvements are in prospect, and that the owners have not the means, if they have the disposition, to engage in these, as at present conducted, expensive trials. We have had nearly half a dozen trials by the State Society, and with the exception of the last one, have not been of as much real value as the less expensive ones at Champaign and at DeKalb. Experience has demonstrated the necessity of a change in the programme.

**CRAB APPLE JELLY.**—Jelly from any other tart apples can be made in the same way as the following—apples, however, should first be sliced. The crab apples have a very delicate flavor—better for jelly than that of other apples. Put them in a kettle with just enough water to cover them, and let them boil four hours; then take them off the fire and rub them through a colander; this will separate the seeds and skin from the pulp; then strain them through a flannel bag. Then to each pint of

the juice thus strained add a pound of white sugar and boil for twenty minutes—skimming meanwhile if necessary. Then fill your glasses or moulds, and let them stand for two or three days in the sun, till sufficiently hardened.

### Death of a Celebrated Horse.

The celebrated horse "Ike Cook," who was matched for the \$1,000 race against Mr. Hastings' horse "Cooley," was taken suddenly sick Sunday evening, at the stable of his owner, Mr. Jessel, with flatulent colic. Dr. Geo. H. Dadd was called and found the horse in a dying condition. On examination he decided the horse a subject of fracture of the pelvis, and at his suggestion the horse was shot. The horse "Ike Cook" was one of the most notable horses in the country, being some twenty-four years of age, and upon the verge of trotting a race where it was expected he would show some quick time, it being but a year or two ago that he distinguished himself by trotting a mile heat in 2:23. Dr. Dadd held a post mortem examination, which revealed a compound fracture of the pelvis, the right side being fractured in some twenty places. This will be quite a disappointment to lovers of the turf who have been anxiously looking forward to this expected trot. The horse was lately purchased by Mr. Jessel, and his loss is heavy under the circumstances.—*Chicago Tribune.*

### New York State Fair.

The New York State Fair, which was held at Utica, last week, is reported to have been, like the Ohio Fair, a decided success. The attendance was very large—on Thursday nearly thirty thousand; but on Friday the storm, which visited us on Thursday, burst upon the New Yorkers in a style which completely cast our gentle rain into the shade. It is reported as the severest storm that ever visited Eastern New York—flooding the streets and roads, and defying all attempts at shelter. The correspondent of the *Tribune* writes on Friday: "It is a matter of history that 'it always rains at the time of the State Fair,' so say those who have kept a record of the weather. History will not be falsified this year, for the rain began about daylight to pour down, and did not stop for breakfast, but poured right on till after ten o'clock. It dampens the prospects of the treasurer, which were very good, if this day had continued pleasant, to equal the receipts of any one of the last seven or eight years, except at Albany. They were larger yesterday than any one anticipated; the sale of single tickets numbering 26,000, part of them for children at 15 cents, but making up over \$6,000, and making the total receipts about \$11,000, besides this day, which makes the Society quite independent, and the Fair, in all but some few minor things, one of the most satisfactory of the series."—*Ohio Farmer.*

## Poetry.

### The Husbandman.

BY F. P. SWEET.

Within the spongy fallow ground  
I saw the yellow corn,  
And many a hill the seed hath found,  
E'er sounds the dinner-horn.

Out in the meadow's dewy calm  
I swing the ringing scythe;  
The corn-crake knows full well the steel  
That spares her brood alive.

The passive steers against the yokes  
Send their stout sticks in twain;  
And clumsy wheels, with muddy spokes,  
Bear up the laden wain.

Swung by my hands, the heavy flail  
Falls on the unshocked grain;  
And through the barn the gentle gale  
Bears off the chaff like rain.

Askant they gaze, the brindle cows,  
And chew their cud in peace;  
The hands that guide the stubborn plows  
The fragrant streams release.

The setting sun the hill-top lights,  
But shadows fill the plain;  
And homeward comes the bird in flights,  
And fowls their roost to gain.

She spreads the evening board with white,  
My quiet wife, for me;  
And sets the children all in sight,  
Their father's face to see.

The night comes on, and darkness hides  
The children's faces small;  
To me they are my earthly guides—  
To them I'm all in all.

This house is still—the crickets chirp,  
And frogs sing in the reeds;  
But underneath the trees, so dark,  
I've sown immortal seeds.

### The Homestead.

BY LADY SPENCER.

It is not as it used to be,  
When you and I were young;  
When round each elm and maple tree  
The honeysuckles clung;  
But still I love the cottage where  
I passed my early years,  
Though not a single face is there  
That memory endears

It is not as it used to be!  
The moss is on the roof,

And from their nest beneath the eaves  
The swallows keep aloof.  
The Robins how they used to sing  
When you and I were young;  
And how did flit the wild bee's wing  
The opening flowers among.

It is not as it used to be!  
The voices loved of yore.  
And the forms that we were wont to see  
We hear and see no more.  
No more? Alas, we look in vain  
For those to whom we clung.  
And loved as we can love but once,  
When you and I were young.

## Agriculture.

From the Boston Cultivator.

### Seeding Land to Grass—Turnips, etc.

The late copious rains have brought the ground into a condition favorable to ploughing and seeding it to grass. In this part of the country there is much land which yields more profit in hay than in any other crop. If tolerably free from stones it can be ploughed after the grass is cut, and resceded immediately. The time for doing this work may depend something on the season to moisture or the convenience of the farmer—say from the latter part of July to the first or second week in September. It is pretty well settled that grass generally *takes* better when sown at this season of the year than when sown in spring. An important advantage of the practice is, that the ground is kept constantly in grass from year to year without the omission of a crop; for the grass that is sown in summer or autumn, will, if stimulated by manure, produce a good yield the following summer, although it may be rather late.

We have mentioned on former occasions, that turnips have sometimes been sown to good advantage with grass seed. More or less turnips may in some cases be got in this way with very trifling cost. But unless the ground is very rich, it will be advisable to apply considerable manure—such as well rotted compost or barn yard manure, superphosphate of lime, or ground bones. The latter substances are excellent for both grass and turnips. It is well known that bones, in some form, produce a more striking effect on turnips and cabbages than on any other crops. Their effect on grass is to render it more nutritious as well as to increase the quantity.

It is not advisable to sow a large quantity of turnip seed with grass seed. As the plants are not to be thinned or hoed, it is desirable that they should not be so thick as to check the growth of the grass, or at least not to such an extent as to prevent the ground from becoming well swarded the following season. With an application of 400 to 600 pounds of bones to the acre, 500 bushels of turnips to the acre may generally be obtained with no labor except sowing the seed and pulling the roots.

We may here state that the seeding of *pastures*

at the time above mentioned, has been practiced advantageously. We believe it is the best time to seed them. An interval of comparative leisure to the farmer generally follows the harvesting of hay and small grain. If he has any time to work on his pastures, none can be more favorable than this. He can get the ground in good order before the seed is sown, and if stock is kept off the young grass during the autumn, it may be grazed the following season. Sheep, however, will graze it to the best advantage. They will not hurt the young plants by breaking the roots and treading them out of the ground; but by cropping the blades and slightly compressing the soil they cause the plants to tiller, and thus produce a close, fine sward.

A word in regard to the grasses for hay and pasturage. Red top and Herds grass or Timothy (*Phleum pratensis*) are the species preferred for hay in this section mixed somewhat, where the soil is favorable to their growth, with red and white clover. We think these are generally the best species for hay for our climate and soil, though some experiments may be advisable with others. In one or two instances we have known orchard grass (*Dactylis glomerata*) cultivated as a hay grass in this vicinity with apparent success. It comes into bloom with the early, or what is sometimes called the western clover, and with it in the proportion of about half of each, makes good hay. It also starts immediately after being cut off, and makes a large second growth which consists almost wholly of leaves. On deep loamy soils it will do very well for hay. But it is for pasturage that orchard grass is most valuable. Perhaps there is not a large portion of the land adapted to pasturage in New England, on which this grass would flourish, but it is well worthy a trial on some of the strong soils, not too wet, of Worcester and the more western counties.

Of other species which deserve a trial, we may mention the Kentucky blue grass (*Poa pratensis*) and meadow fescue (*Festuca pratensis*). The former is to be sure already established to a considerable extent, coming in spontaneously or without being sown, in many of our best pastures; but in seeding for permanent grazing, it would be well to sow the seed, having, of course, regard to the character of the soil. It does not show itself to advantage except on pretty good land, and it is only on such that it is an object to sow it. A bushel of good seed ought to be sown to the acre. If the land is well adapted to it, no other seed will generally be required. White clover enough to give about the right mixture in the feed will be likely to "come in"; but if there is good reason to believe that there is not enough white clover in the ground, a pound or two pounds of the seed may be sown. The meadow fescue is not generally appreciated in this country. It is a good grass; starts early and grows till very cold weather sets in. Cattle eat it well; on some moist pastures it is about the first species to afford a "good bite," and the avidity with which cattle eat it when first turned out, may have been noticed. The seed probably cannot be had in our markets, but if a little care were taken, enough of it might be saved from what grows spontaneously, to increase the quantity in a few years to an indefinite extent. But if the soil is rather thin, red top (*Agrostis vulgaris*) in some of its varieties, will succeed best.

From the Country Gentleman.

### White Purkey and Lambert Wheats.

Enclosed I send you a few heads of White Purkey wheat. I have raised this variety two seasons; but one piece has failed this year. It did not come up well in the fall, owing to the excessive dry weather, and was attacked by the weevil and rust. It has also some smut in it. The other piece was sown the 16th and 17th of Oct., and is better, but is very thin on the ground. It is well headed and well filled; but there is some smut in this, though not so bad as the other. It has also escaped the weevil and rust, and I think will make a fair yield.

The straw of this wheat is large and strong, and will stand in rich ground, where other varieties will fall. It stools out thick where it is not sown too thick. It also yields better than other varieties, where it does well, making from 20 to 40 bushels to the acre. If we could get rid of the weevil, this kind would prove a valuable acquisition to wheat growers.

The Lambert or Weevil-proof wheat proves to be all that is claimed for it. I find that it is surer, and freer from rust or smut, than other kinds. As for the weevil, I have not seen one in the grain yet, and I had it side by side with the White Purkey, which was nearly ruined by that pest. The field was examined by others as well as myself. Its earliness is a very desirable object in regions infected with the midge, being from three to five days earlier than the Mediterranean, and a week earlier than the White Purkey. It makes first rate flour, and is preferred by "our folks" to any other we have or raise. I am better pleased with it than ever, and intend to sow more this fall than formerly.

F. C. W. Columbus, O.

### Large Sugar Works.

From a West Indian, who recently favored us with a call, we learn that Signor Zulueta, a planter in Cuba, is now putting up on his immense sugar estate the largest apparatus in the world. His mill is being made in Glasgow, Scotland. The rolls are 7 feet long, 36 inches in diameter; the main journals, 20 inches in diameter, best wrought iron. The works are propelled by a high pressure engine. Diameter of cylinder, 22 inches; stroke, 5 feet. Five double flue boilers, 36 feet long and 5 feet in diameter, are employed to run the mill and pans. The syrup after being clarified and filtered through bone coal, is boiled down in vacuum pans, of which five of the larger sized are used. The cane is brought to the mill by a locomotive and cars, which run on regular railroad tracks leading to all parts of the plantation. The cane is unloaded from the cars directly upon the apron which conveys it to the rolls, and the body of cane which is fed to the mill is fourteen inches deep, reaching from end to end of these rolls. The feed roll is set seven-eighths of an inch from the main roll, and the delivery roll three-sixteenths of an inch. The bagasse is burned by a peculiarly constructed furnace, which affords all the heat required. The product of the estate amounts to from three to four hundred thousand dollars a year.—*Sorgho Jour*

## Horticulture.

### Nails and Peach Borers.

CONCORD, Oct. 16, 1863.

*To the Editor of the Illinois Farmer :*

DEAR SIR—I saw an article in the October number of your valuable paper headed "Nails and Peach Borers." The writer of the article states that he has tried driving nails in his peach trees to prevent the ravages of that little pest, the Peach Borer; but all to no effect. And he asks the question, why your subscribers and the friends of fruit culture cannot make up a purse, to stimulate inquiry—to be paid the successful discoverer of some practical remedy for the peach growers' worst pest. If you shall see fit, through the medium of your paper, you may inform Mr. K. (the writer of the article above-mentioned) that I do not ask any compensation for the discovery I have made of a preventive of the Peach Borer, which has proved successful thus far, with me, for the last five years in succession. But for his benefit, and all those who may have an interest in peach culture, I would say that my remedy is, first, to cut out with a knife all the borers to be found in the trees. Sometimes they will work down beneath the surface of the ground, where the earth has shrunk away from the tree and left an open space, which should be examined closely; after which the earth should be solidly packed around each tree. Then, with a brush, apply gas tar entirely around each tree next the ground, and in making the application be careful to let the tar run down on the ground, so as to prevent the borer from going between the earth and the tree. The application need not be more than two inches wide around each tree, but it should be made annually. The same remedy I have applied to my apple trees of different sizes, from two to eighteen years growth, with perfect success, for the last five years. I never wish a more vigorous growth than my trees have made since I used tar on them. The tar can be had at any gas works where gas is generated for gas light in any of the towns and cities. I get that which I use at Jacksonville, for ten cents per gallon. If any person wishes to see the effect gas tar has had on about three hundred of my trees, I should be happy to wait on them at almost any time.

M. J. POND.

Our readers will thank Mr. Pond for the above, though a repetition of last year, as will be seen on page 170, vol. VII. It would appear that another year has more strongly impressed upon him its value. Next season we shall avail ourselves of this remedy. Mr. P. is a careful and intelligent ob-

server, and his results are entitled to our attention. It is just such information that we want.

### Egypt as a Forcing Country.

MUSCATINE, IOWA, Oct. 20, 1863.

*M. L. Dunlap, Editor Illinois Farmer :*

DEAR SIR:—Great importance has of late been attached to the uplands of Southern Illinois as a fruit region; indeed, for some years past there has been great activity among American pomologists in searching out the most favorable locations in our vastly extended climate for speedy fortunes in their favorite professions. Enterprises of this character are seldom or never unattended with some degree of speculation, which is corrected by practical experience; and devoting much study to the subject of protecting trees and plants against the climatic emergencies of different locations, have given rise to some reflections on the subject suggested in the above caption.

The very great extremes presented in the climate of the State of Illinois, stretching as it does from north to south over nearly four hundred miles of country, in the very heart of North America, may perhaps be better appreciated by stepping a little to the north and to the south of her domain for climatic examples.

A gentleman from Wisconsin, passing this way some three or four weeks since, in pursuit of a more genial climate, had located in Wisconsin six years before, with full confidence that he could raise fruit in that climate; but late frosts had injured his vines four years of the six—once killing the entire new growth when four feet long, which nearly killed the entire plants.

A correspondent from the same State, in the latitude of St. Paul, under date of Aug. 11th, writes:

"The showers come very opportunely now, doing the corn much good, which was injured by two frosts in July."

Another writing from the same region, September 10th, says:

"Our season has been disastrous to our farmers, beyond all precedent. A severe drouth and an early frost blasted their hopes for this year."

We met an acquaintance the past summer who had resided at Prescott some twelve years. He had planted fifty dollars worth of trees—had been killed, each about as many winters as they had grown summer's. The roots were old enough, he said, to bear apples if the tops had not been so often injured.

The residents of Southern Illinois will regard themselves as fortunate in the possession of a much milder climate; indeed, the advantage of ten

degrees in the annual average temperature they have over the inhabitants of the northern limits of their own State, is well worthy of due appreciation; but they too, it appears, are subject to climatic casualties.

In the *Prairie Farmer*, P. S. & S. S. Lawyer, writes from South Pass, March 14th, 1863:

"Weather is now settled. We have had alternate thawing and freezing, and so it has been all winter, with the weather very mild and open. \* \* Peaches nearly all destroyed. Some of our apple trees started their leaves two or three times this winter, thinking spring had come, I suppose, when "Jack Frost" made his appearance and cut them off. \* \* \* Our gardeners are now removing tomato plants from hot beds into cold beds, and commencing to prepare the sweet potatoe plants."

N. C. M., Dongola, June—, 1863, says:

"We will have from a fourth to a third of a crop of fruit. The October freeze did the business, not only for much fruit, but such trees as were thrifty. This may explain why peach leaves curl."

F. K. Phoenix, in "Fruit Notes in Central and Southern Illinois," in a recent number, writes:

"About Centralia the peach crop was light, and much mischief done to the young orchards by the terrible freeze last fall, about October 20th. In Jackson and Union counties, where the largest fruit interest has commenced, the peach crop was, as near as we could judge, scarcely one-quarter, in some cases not one-twentieth what it should have been. As to the cause, all now agreed that much mischief was done by the unparralled October freeze; then after the open winter, swelling the blossom buds nearly to bursting. These was the coldest snaps of the season, about the middle of February, which weakened the buds still more, not killing them outright, but rendering them subject to subsequent and repeated casualties, in the shape of severe late frosts and very wet weather through June and July. \* \* \* So, notwithstanding, there was a fair crop of bloom on many places, and a good show of setts; the fruit kept dropping off and rotting until it made out a practical failure."

Were we an Egyptian florist or market gardener, we should read with much pleasure and satisfaction the following extract from a communication of L. Stewart, Memphis, to the *Horticulturist*, in 1851:

"To be a plantsman here, you must be directed by natures' laws, paying the closest attention to the great excesses of temperature, which belong to a climate partly temperate and partly tropical.

The winter division here, that is, after the heat of summer declines, and before it regains its power

in the spring, is to a certainty, of all the climates I have practiced in, the most favorable. We can pat, repat, reduce balls of earth, shake them to pieces, or whatever else necessity and proper management directs. Nature assists at this season, and everything prospers well and grows luxuriantly. A charming sight certainly, is a well kept and well managed green-house, all throughout this season. Next comes the summer division, the season of extreme heat, with strange contrasts in its effects."

The writer goes on to describe the injurious effects of excessive heat on soft-wooded plants, and then remarks:

"Your hard-wooded plants, and all that are not the growth of a few months, will not be effected so visibly."

Winter forcing in the northern States in houses with glazed exposures equal to seven-eighths of their entire dimensions, is an expensive business, requiring a heating apparatus, and fuel in some proportion to the large engines necessary in manufacturing establishments. The products of such houses are necessarily rare luxuries, and command extraordinary prices.

If Egypt can establish a fair character for bright skies, she will develop not many years hence, a large and important interest in forcing fruits and vegetables, principally by sun heat.

JAMES WEED.

—Dr. Weed writes us that he has made important improvements in his tree protector, and promises us drawings of them within a short time. We shall therefore delay our remarks on this subject until all of the facts are before us. The Dr. is a close observer, and we trust will add something valuable to fruit culture in the north-west.—Ed.

From the Rockford Register.

### State Horticultural Fair.

The Second Annual Fair of the State Horticultural Society, was opened in this city on Tuesday last, on the splendid Fair Grounds of our County Agricultural Society, the Halls connected with which are admirably adapted for the purpose. The Fair opened under auspicious circumstances, with every prospect of a splendid exhibition, a large attendance and complete success. So far as the exhibition is concerned, this has been largely realized: but the storm of Wednesday night and Thursday interfered greatly with the attendance on that day. Thousands who designed attending on Thursday were prevented by the succession of violent showers of rain which prevailed nearly all day. It



was a complete damper on the Fair that day, rendering it necessary, also, to postpone the exhibition of Fireworks announced for that evening, which will be had on Thursday evening of next week, in connection with our County Fair. Notwithstanding the storm, however, the attendance even on Thursday, was quite respectable. Yesterday was a bright and beautiful day, and the attendance was largely increased. On Wednesday an Excursion train came in over the Galena Road, starting at Cottage Hill, bringing about five hundred passengers. On Thursday an Excursion train came over the Kenosha Road, from Kenosha, also bringing a large number of passengers. In consequence of the storm the Fair was continued over till to-day, and will be formally closed this afternoon.

Most of our readers are already familiar with the location and size of the three Halls on the Fair Grounds. They are all of them spacious, being about one hundred feet in length, and fifty feet in width.

#### FLORAL HALL.

This is the large tent heretofore known as Agricultural Hall, but so changed in its interior arrangement that it would hardly be recognized. It is laid off into broad walks and terraces, the latter made to represent Nature's green turf as nearly as possible, and forming a splendid platform for the display of the rich treasures of Flora's Kingdom which were on exhibition. Near the south entrance to the Hall is an elegant pyramid of evergreens and flowers interwoven, some eight feet in height, surmounted by an eagle bearing in his beak the stars and stripes. This may be called the national pyramid. Surrounding the pyramid are five smaller ones, each surmounted by a representative bird of the prairie State. This beautiful design and its execution were the work of our well known Florist, Mr. Alexander Strachan. In the center of the Hall stands a beautiful fountain in full play. This is surrounded by rocks, marine birds and shells, and in the basin, a number of lusty bull frogs "keep music with a sort of runic rhyme." At the north end of the Hall is a very exquisite design of a Floral Temple, also made of evergreens and flowers, surmounted with a horned owl, and containing in its centre a fine piece of statuary. The basin in the centre, together with the temple, and most of the interior arrangements and decorations, are due to Mr. John Blair, of this city, a very skillful Florist and designer. Mr. James McLaughlan also had a fine fountain in play, with floral design, as also had Mr. Strachan.

It is nearly useless to attempt to describe the floral display, as a personal view alone is adequate to give any just conception of such a gorgeous

display of floral beauty. One thing was marked by all observers, and it is a fact in which we feel no little pride, that in this department Rockford furnished probably nine-tenths of all the specimens exhibited, and the display was such that we feel well convinced visitors from abroad must have formed a very high opinion of the Horticultural taste of our citizens.

Among the exhibitors we noted the following: H. P. Kimball, a splendid display of dahlias and seedling verbenas, petunias and heliotropes; also bouquets; he had 60 varieties of dahlias and 85 of verbenas. J. S. Shearman had a very large display of Green House plants, flowers, evergreens, fruit trees, etc. Capt. E. Cosper contributed a splendid display of Fuschias and Green House plants. James McLaughlan, a large collection of flowers, also rustic work. John Blair, 20 varieties of leaf plants, also fine flowers and rustic work. E. L. Able, a very fine collection of Asters, Japan Lilies and other choice flowers; Mrs. Able and Misses Mary and Emma Able also contributed flowers and bouquets—one of the latter of wild flowers was particularly admired. A. Strachan had a fine collection of flowers and bouquets. W. G. Ferguson, as usual, exhibited splendid specimens of flowers. Mrs. Oscar Taylor, of Freeport, fine cut flowers; Williams & Witbold, of Chicago, collection of leaf plants; J. H. Douglas and H. B. Norton, both had a fine show of Asters; Miss Redington, handsome wild flowers; Mrs. P. W. Marsh, elegant Asters and wild flowers; Mrs. W. D. Gregory, rustic vase; Mrs. Calvin Pratt, Mrs. A. M. Fletcher and Miss Sarah Fletcher, tastefully arranged bouquets of wild flowers; T. D. Robertson, house plants; Mrs. Sarah Robertson, beautiful pansies; Eva Townsend, Asters and everlasting flowers; Dr. Kennicott, of Chicago, some very elegant flowers, his Japanese pinks attracting special attention. Miss Maria Weldon, Thos. Liddle, H. Kingsbury, Mrs. Moulthrop, Mrs. Blinn, Mrs. L. B. Gregory, Mrs. E. P. Snow, Miss Mary E. Wilson, and Mrs. S. P. Crawford were also contributors in this department. A. Hovey, of Chicago, exhibited a large variety of rustic work, including chairs, flower posts, stands, vases, etc, which were very fine. D. C. Scofield, of Elgin, had a fine display of Evergreens. An attractive feature of Floral Hall, also, were the stuffed birds of Mr. W. Blackburn, perched in among flowers and Evergreens, giving life to the scene. Mr. Minier, President of the Society, also contributed some fine pieces of statuary for the ornamentation.

#### POMONA'S HALL.

What has heretofore been known as the Dining

Hall was refitted, and adapted to the display of Fruit, and dedicated to the Goddess Pomona. The display here was very large and very fine, comprising nearly all the varieties of fruits grown in this latitude, now in season, and amply demonstrating that Illinois is destined to, or rather has already reached a high position as a fruit growing State.

The following list comprises the names of the exhibitors in this department:

Wm. Gates, Tyler, Winnebago county; J. S. Knowlton, Byron, Ogle county; Dr. Geo. Haskell, Rockford, Illinois; W. H. Hansen, Franklin Grove, Lee county; W. C. Flagg, Moro, Madison county; C. W. Dimmock, Alton, Madison county; D. W. Ticknor, Rockford; I. D. G. Nelson, Fort Wayne, Indiana; W. F. Parrish, Rockford; Elwanger & Barry, Rochester, New York; S. W. Arnold, Cortland, DeKalb county; S. G. Minkler, Specie Grove, Kendall county; Mrs. W. F. Parrish, Rockford; O. B. Galusha, Lisbon, Kendall county; A. Bryan & Son, Princeton, Bureau county; T. A. Chandler, Rockford; A. M. Weldon, Rockford; Daniel Baker, Rockford; A. Buell, Little Prairie Round, Michigan; L. Woodard & Company, Marengo, McHenry county; Andrus Corbin, Rockford; Wm. Cook, Sterling, Whiteside county; D. S. Penfield, Rockford; E. Frost, Alton, Illinois; Williams & Witbold, Chicago; H. P. Kimball, Rockford; E. Ordway, Freeport, Stephenson county; W. C. Hanford, Rockford; Dr. B. F. Long, Alton, Illinois; M. Collins, Rockford; Dr. H. Schröder, Bloomington, Illinois; J. H. Tice, St. Louis, Missouri; E. R. Mason, St. Louis, Missouri; Dr. H. Claggett, St. Louis, Missouri; Dr. George Haskell, Rockford; E. P. Snow, Oregon, Ogle county; D. L. Emerson, Rockford; Isaac Andrus, Rockford; C. C. Wamsley, Polo, Ogle county; J. S. Shearman, Rockford; Dr. C. N. Andrews, Rockford; D. L. Emerson, Rockford; James L. Tubbs, Elkhorn, Wisconsin; Samuel Edwards, LaMoille, Illinois.

Total number of entries in this department, one hundred and one.

#### GARDEN HALL.

The third hall, heretofore Floral Hall, is appropriated to the products of the garden, including onions, beets, potatoes, cabbage, parsnips, sweet corn, squashes, beans, sorghum, etc. The display here was not large in respect to number of entries, but there were some very large and fine specimens of garden vegetable, showing the skill of our gardeners. Mr. G. B. Alverson was the largest contributor, having a large variety of garden products. J. H. Douglass, W. Gates, D. S. Pardee, F. D. Cammann, Harry Landers, Jason Marsh, Charles S. H. Butler, Spencer Post, C. W. Murtfeldt, and others, were also among the contributors.

#### DISCUSSIONS OF THE SOCIETY.

Each evening during the Fair there have been sessions of the Society at the Court House, for business, discussion of practical subjects, reading of Essays, etc.

#### TUESDAY EVENING.

G. W. Minier, President of the Society, called the meeting to order and awaited suggestions from members of the Society.

Mr. O. B. Galusha moved that a committee be appointed by the Chair to prepare resolutions in relation to the death of the late Dr. John A. Kennicott, which was unanimously adopted.

Mr. Flagg offered a resolution that a committee of seven be appointed, of which the President shall be Chairman, to report tomorrow evening on the subject of an Agricultural College or Colleges in Illinois.

The resolution was unanimously adopted.

The President explained the present condition of the movement in regard to an Agricultural College, that the matter was before the Legislature, but was not definitely acted upon, owing to the proroguing the Legislature by Gov. Yates.

Judge Church explained that there was a good deal of log rolling upon the subject of the Agricultural College in the Legislature, and there seemed to be much doubt and ignorance as to the real wants of the Agriculturists; and it seemed to be a general desire that the matter should be postponed until a bill satisfactory to the farmers should be digested, and that was principally the reason why nothing was done in the Legislature.

Judge A. S. Hiller, said Illinois, in her Agricultural resources was and must be the first State in the Union, and we must therefore lay a broad foundation for the future. In his estimation an Agricultural College should be the first and main theory. We do not want simply a professorship in a college, but a college itself, which should embrace within its folds Agriculture, Horticulture, etc. Everything should be taught connected with Agriculture—Chemistry as applied to all Agricultural products, measures, etc.—so that Agriculturists should know their business, and thus exercise the influence which properly belongs to them.

Dr. Long, of Alton, said he believed that Agricultural Schools were a necessity, wherein may be taught the true science of Agriculture, not simply by books, but by practical experiments. These things are not now taught in our schools, but he did not know why they ought not to be. We have not a school in Illinois which teaches any of the sciences—Etymology, Botany—and other like sciences connected with Agriculture. A school ought to be commenced at once. He wanted the farmers to see to it that the fund appropriated by Congress should be properly used for the purpose for which it was intended.

After some further debate, the subject was laid over until to-morrow evening.

The President announced the following gentlemen as the committee on the resolutions in regard to the death of Dr. Kennicott, viz: Dr. Warder, of Cincinnati; C. D. Bragdon, H. D. Emery, O. B. Galusha, C. R. Overman, S. G. Minker and C. W. Murtfeldt.

The subject of the place for the next annual meeting was taken up, and it was understood that Decatur had presented claims for the honor. Peoria, Bloomington and other places had also made their claims. The impression seemed to be that Decatur was most wide awake upon the subject. The invitation from Bloomington is a standing one from year to year; but as the Society had

met for several years past at Bloomington, it seemed to be the impression that a change might not be out of place. The subject, without reaching any conclusion, was laid over.

The Chairman named the following committee on the subject of an Agricultural College, viz: G. W. Minier, W. C. Flagg, Dr. C. N. Andrews, Jonathan Periam, Dr. B. F. Long, C. D. Wilbur and J. P. Reynolds.

The subject of County Auxiliary Societies to the State Horticultural Society, was discussed at some length.

Dr. Andrews spoke of the influence of these Horticultural Societies, as seen in the increased attention given by farmers and others to the cultivation of fruits and flowers, and thus rendering their homes more attractive.

Dr. Warder said he frequently found men on the broad prairies who could not tell a dahlia from a hollyhock. He believed that Agriculture and Horticulture should go hand in hand. He believed it a good thing to have separate Societies in many localities like Rockford and some other portions of the State, and they should be encouraged, unless they seemed to ignore or overshadow Agricultural Societies. He was sorry to say that his State (Ohio) had no State Horticultural Society. They have a Pomological Society there, also in Indiana. Further discussion was postponed.

Mr. Bragdon offered the following resolution, which was adopted:

*Resolved*, That members present be requested to make verbal reports of the amount of fruit, varieties and bearing, causes which have contributed to the success or failure of the crop this season in their respective localities.

In accordance with the resolution, reports were called for, and the subject of apples was discussed.

Mr. T. G. Minkler, of Kendall county, said the apple crop is pretty good, or better than last year. Early varieties suffered from drouth. The early prices were not so good as last year. Most of the fruit was considerably wormy; the early harvest was not wormy, but small; wine saps fair.

Mr. Murtfeldt, of Ogle county, said the Early Harvest is very fair, and abundant; Caroline Red and Pine Red were small, and inclined to scab. Has some Rhode Island greenings which bear every year, while his other varieties do not. Yellow Belle Flower is a shy bearer. Early Red is of no great worth, which means worth nothing at all. His Belle Flower trees are some fourteen years old.

Mr. Horsman, of Lee county, said his soil is hazel brush, with clay subsoil. Early Harvest has always been a shy bearer. The Early June is a good bearer. Early Harvest bore better this year than ever before; but apples this year are generally better. The Rambo bears as well as any this year. The May bugs had injured the fruit much. They generally appeared about sundown. In some localities they were troublesome. No caterpillars this year of any consequence. Apples started at \$1 per bushel, but are now down to seventy-five and fifty cents.

Mr. Cook, from Whiteside county, said his apples were fair; have been troubled with worms, particularly pismires. The first fruit started at \$1, but is now down to fifty cents. Chamberlye destroys the pismires.

Dr. Long, from Madison county, said he never

saw a greater crop of apples than this year. It was five times larger than ever before. Trees are completely broken down with the fruit. All kinds are first rate. Pears are small on account of the drouth. The price at first was \$1 per bushel, but it came down to fifty cents. The caterpillar infests the trees considerable now. Did not think the pismires injured the apple tree. He thought they destroyed many worse animals.

Mr. Minier thought if we ever found a pismire in a tree, it was after a worse animal. He believed the best fruit in our part of the country were Early Harvests, Carolina Red and the Red Streak.

Mr. C. R. Overman said the fruit crop in Fulton was very large. The Early June and the Early Harvest were abundant. The price opened at \$1 finally fell to about 30 cents. The apple worm is very plenty, and seems on the increase.

Mr. Kimball, of Winnebago county, thought the Red June needed much cultivation, and this year he had cultivated them very thoroughly, and they were larger than ever before. He sold them at first at \$1 75 per bushel, but they were now down to \$1. There is a big apple crop in Winnebago county this year—bigger than ever before. The size is smaller than before.

Mr. Woodward, of McHenry county, said the crop of apples had been very good, considering the drouth. The American Golden Russett is a favorite with us. He also mentioned several other varieties that had borne well. The price has been \$1 a bushel for good apples and that price remains. The leap louse has been busy, and when they work is found the pismire, but whether for mischief, he could not tell. Early fruit requires more cultivation than late from the fact that it ripens at a season when there is apt to be a drouth.

Mr. Galusha wished to correct the impression that was very general that apples could not be raised out on the open prairies. His experience was different from this impression. His crop was very large, and he had to shake the apples off to prevent the trees from breaking down. In this way his trees were saved. The apple worm had not affected his Holland Pippin. He had watched the pismire on the tree—on sickly trees—but on close observation, he found that they were after some animals.

Dr. Andrews thought the leap louse were merely the satellites of the pismire. The pismires transport them from tree to tree, and when they disappear, the leap louse disappears.

The subject of pismires was further discussed by Dr. Warder and others.

Mr. Stewart, of Putnam county, said the apple crop was a good one, but the fruit was small. The worm has not been very troublesome, but the impression is general that worms and other apple vermin are on the increase.

Mr. Galusha thought trees got lousy because they were not well cultivated, just as cattle that are not well taken care of get lousy.

Mr. Nelson, of Indiana, stated that the apple crop in Indiana is very fine—better than for many years. This includes all varieties. All the fall apples are excellent. The worm has been troublesome. Nearly all early varieties escaped the worm. All of the winter apples are much troubled with the worm.

Dr. Warder said that in Southern Ohio the fruit

was poor, but in the centre and North part of the State the crop was better.

The meeting then adjourned until to-morrow night.

#### WEDNESDAY EVENING.

President in the Chair.

Committee on resolutions in relation to the death of Dr. Kennicott, reported the following:

Your Committee report—

1. Death has taken from among us Dr. John A. Kennicott, one of the truest friends of Agriculture, and the pioneer of Horticulture in the West. His death is a personal bereavement, to each of us, a great public loss, and makes a grievous and irreparable vacancy in our membership.

2. It is fitting, therefore, while we give expression to our sorrow, because of our loss, and assurances of sorrowful sympathy to his bereaved family, that we pay a more formal tribute to his life and character, to his worth and usefulness, to his general and upright influence as a man, a friend, and a co-worker in all that elevates rural pursuits, and ennobles those engaged in them.

3. We accordingly recommend that the Society select one or more of its members to prepare a biography of our lamented friend, for publication in our next volume of transactions, and to pronounce an appropriate eulogy at our next annual meeting.

Adopted unanimously.

The committee appointed to report on an Agricultural College grant, made their report, which, after discussion was unanimously adopted.

Your committee appointed to present the views of the Society in relation to the Congressional Agricultural College grant, submit the following report:

*Whereas*, The Congress of the United States has made a munificent grant of land to the State of Illinois, for the purpose of establishing an Agricultural and Mechanical Institution; and

*Whereas*, Endeavors have been made to divide the proceeds of said grant of land among already existing institutions of learning; therefore,

*Resolved*, That the industrial interests of our State are one and indivisible.

*Resolved*, The one institution should be established by the fund independent of all existing institutions of learning.

*Resolved*, That in the unanimous judgment of this Society, that it is the interest of the industrial classes of our State that one independent institution of learning be established to carry out the full purpose and intent of congress in said grant; and that we will use all honorable means in our power to carry out the spirit of these institutions.

*Resolved*, That this Society recommend that a course of lectures on the elements of Agriculture, be given in some city of Illinois during the coming winter; said lectures to be under the auspices of the State Agricultural and Horticultural Societies of Illinois.

*Resolved*, That a committee be appointed to confer with the State Agricultural Society, for the purpose of making all necessary arrangements for said course of lectures.

After a free discussion of those relating especially to the land grant, the resolutions were adopted.

The following committee's were then appointed:

On Correspondence—Periam, Galusha and Overman.

On Lectures under Resolutions—Minier, C. B. Bragdon and Prof. Turner.

On Final Resolutions—Dr. Kennicott, Mr. Flagg and Dr. Warder.

Dr. Claggott and John H. Tice, of St. Louis, I. D. G. Nelson and De Groff Nelson, of Indiana, and J. Knox, of Pittsburg, were elected honorary members of the Society.

On motion, also, it was voted as a rule of the Society that no further honorary memberships be bestowed upon citizens of this State.

The following resolution was referred to the committee on Lectures for action.

*Resolved*, That a committee be appointed to provide for the offering of a liberal premium by this Society, for the best and most comprehensive essay upon the proper season for cutting forest trees, and preparing timber for various economical purposes. The essay to be based upon practical observations and experiments; also, to embrace scientific investigations as to the ravages of insects, and as to the chemical elements of the woody fibre, at different seasons, and to be correct in the botanical nomenclature of the trees mentioned in the essay.

The subject of the propagation of the grape was then taken up for discussion. Our space will not permit an abstract of the discussion, which we may, however, give hereafter. It was very interesting. Mr. Knox, of Pittsburg, Mr. Kimball, of Iowa, and Dr. Shroeder, Mr. Phoenix, Mr. Rosensteel, and Dr. Kennicott, of this State, taking part therein.

#### THURSDAY EVENING.

Moved that the time and place of holding the next winter meeting be now fixed.

The President stated that all that was expected was a good hall and free entertainment of bona fide members.

Mr. Overman, of Bloomington, invited the session at that place, at any time the executive committee should select. Mr. Fell, of the same place, extended a similar invitation. Dr. Kennicott and Mr. Bragdon, of Chicago, invited the session at that city. Mr. Flagg proposed the city of Alton.

After considerable discussion, Alton was selected as the place by a nearly unanimous vote.

On motion, the time was left to be fixed by the executive committee, sufficient notice to be given thereof to advise all the members of the Society.

Dr. Warder, of Cincinnati, was then introduced to the meeting, who proceeded to deliver a very practical and earnest address upon Food Plants. He stated in the outset that he knew he was departing somewhat from his usual line of talk upon Pomology. He gave a very interesting analysis of various plants forming food for man, showing an intimate acquaintance with the vegetable kingdom as also with its chemistry. Our space does not permit this week to give even a synopsis of his admirable address, and from its nature anything short of a pretty full report, would fail to do him any sort of justice. The lecture abounded in valuable information and practical facts in regard to the wheat plant, rye, barley, oats, maize or Indian corn, rice, the sugar cane of the tropics, sorghum of the north or Chinese sugar cane, etc., etc. He also gave a very full statement in regard to sugar



of the various kinds manufactured, the comparative amount of the products, and the influence of sugar upon the rice. Grasses as food for animals was also discussed. Garden vegetables, berries, fruits, and a large number of plants used as food for man in various latitudes, were referred to, concluding with a brief but forcible eulogy upon the dignity of labor.

A vote of thanks of the Society was tendered to the Dr. for his able address, and its publication with the transactions ordered.

The Society then adjourned to Friday evening, which was its final session, and of which, as our paper was "made up" last evening, we have no report.

We ought not to omit to mention in concluding our report, that the officers of the Society were indefatigable in their efforts to secure the success of the fair, laboring diligently, early and late, both before and during its continuance.

We had designed giving this week the list of awards in full, but we find our space and time both too limited. We shall publish the premium list next week, or such portions of it as may be of special interest to our readers in this section.—*Rockford Register.*

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From the Country Gentleman and Cultivator.

### The Delaware Grape.

I see in the *Country Gentleman*, page 190, a notice of the great discovery made out west in relation to the productiveness of the Delaware grape. Vines propagated from barren wood, it is asserted, grow freely and abundantly, while those from non-bearing shoots grow feebly and bear nothing. Two or three witnesses are cited in favor of this singular position. Our western friends are very intelligent and enterprising, but I think they sometimes adopt rather queer notions. I remember at this moment the universal denunciation of root-grafted apple trees some years ago, as being poorer bearers than budded ones, which most now deny, and not as being less hardy in some localities, which was always admitted. After innumerable cases had been cited, and many specimens shown of young root-grafted trees bearing abundantly in the nursery row, the notion was generally given up; and I should not be surprised if this Delaware grape theory should share the same fate. The kind of wood used for grafting, or the particular place on the vine where it is cut, cannot alter the variety in the slightest degree; it is still the same Delaware grapevine, a portion of the original plant extended and multiplied. A change in the variety itself can only be effected by new propagation from seed. This is the universal law, admitted by all physiologists. A feeble shoot may for a time make a feeble vine, but a feeble vine rendered vigorous by pruning and good culture, is better than another at first vigorous, but rendered feeble by neglected management. Now it so happens that some of the best Delaware vines, and greatest bearers I have ever known, were originally of these same plants, but were recovered from the feeble condition by the good treatment just spoken of. I have seen hundreds of young, stunted and feeble fruit trees, by judicious cutting back and enriching and cultivation, converted into fine orchards of thrifty, healthy trees. And on the other hand, I have known still larger numbers of thrifty trees from

the nursery rows made feeble, stunted and unproductive by abusive management. I have been told that young trees would continue to be heavy bearers and small growers by propagating them from bearing wood; but I found that it was the *present condition* of the tree, and not the stick it was budded from, that told the whole story. A fruit bud on a stunted shoot may be difficult to start after inserting in the stock; but after it has been once started and becomes thrifty, the tree is as good as any other thrifty one, and does not differ at all from it. This, at least, is the result of considerable experience. I was once told that shoots for budding taken from different parts of the tree would show themselves distinctly in the nursery row, and accordingly I cut buds from the lower, shorter, and more crooked shoots of the bearing tree, and inserted them in one row of stocks, and other buds from the tall, straight, thrifty shoots at the top, and inserted them in another row. Not the slightest difference could be observed in the growth of the trees of these two adjacent rows. The truth is there could be no change whatever made in the character or identity of the variety in thus simply extending it under merely casual and temporary circumstances. The Irishman who was accidentally born out of Ireland, indignantly answered when his "patrickism" was denied, "would you think I was a horse if I happened to be born in a stable?" Permanent changes in varieties are not any easier made by mere local accident.

PYRUS.

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### Fruit.

In our ramble through the towns of Winnebago and Seward, we noticed considerable fruit, although many of the trees were comparatively young. Where the orchards were cultivated and protected by belts of timber, fruit seemed most abundant. When we say "cultivated," we mean that they were planted to some hoed crop. We saw but two young orchards that were sown to small grain or grass, and we would advise their owners, (if they see this paper), to put in the plow as soon as possible, and give a liberal top-dressing of well rotted manure. No labor will pay so well, and make such liberal return. To such of our farmers as have been unfortunate in their selection of apple trees, we say, attend the Horticultural fair and the evening discussions, and you will there learn something worth knowing with regard to hardy trees, and their proper management. Of pears, plums and grapes, we saw little or none. Small fruits, which as "Rural" says, are the *fruits* for us, should also receive more attention.

### GRAPES.

On Thursday last we saw a dozen vines of the Delaware grapes, all of the same age, and receiving the same treatment. Those that were "struck from the single eye," showed little or no fruit, while those raised from cuttings (by some believed to be impracticable, if not impossible) were loaded with fine compact bunches—unbelievers are referred to Chas. Rosenstiel, of Freeport, Ill.

When the farms in the town recently visited by us become a little older, the different branches of husbandry will receive more attention. We saw very little stock, comparatively, and were referred



to only one or two farms where dairying was resorted to; yet there is some talk of erecting a cheese factory, we believe, within the town of Seward, where, it is said of one gentleman who has now a small dairy of twelve cows, that he intends to increase his number to thirty, and others will also add to the number of their cows, if the factory plan should be adopted. We sincerely hope this enterprise will go on. Large cheeses sell better, and if made at a factory, will also be more uniform in quality, as well as in size. But our farmers have much to learn in dairying. While we meet here and there a careful woman, who superintends, or what is better, works the butter she makes herself, there are by far too many who make butter only to be used when fresh, or which if shipped, would bring little credit either to the maker or the country where it is produced. Butter is oftener worked too much than too little, it becomes salvy and deserves more the name of grease than butter. The salt used is the common barrel salt, put in the butter in such quantities and such coarse lumps, that even after it has been brought to market the salt is not all dissolved, and may be found in large coarse grains.

In our remarks on butter, we do not wish to be understood as referring to any made in Winnebago or Seward, particularly, but to several lots we have had occasion to try in a store, whose owners are packing a good deal of this product of the dairy. Butter is an article which should be carefully made and handled. It enters largely into our general diet, and improves, or spoils and makes offensive very much of what we eat every day. There is still too much poor butter made in the vicinity of Rockford. "We want to make this shoe fit!"—*Rockford Register.*

NEW YORK APPLES—MR. EDITOR—I saw a large collection of apples and pears from the grounds of Messrs. Elwanger & Barry, of Rochester, New York. The specimens were much smaller than those grown West, and many varieties that are not for sale in our nurseries. I have heard that these gentlemen cultivate highly, and that their fruit is always large and fair. I am much disappointed in these specimens. P. L.

The season of maturity at Rochester is later than with us, and these specimens are not more than two-thirds grown, which gives them in addition to their small size, a wilted, immature appearance. In New York the demand is for other varieties than we find productive, but Messrs. E. & B. cultivate largely of Western varieties for Western trade, which makes their collection of trees more valuable to us than most other Eastern nurseries who have a large trade at the West. As a general thing our fruits are larger than those of New York, but they are none the less valuable on that account, but on the other hand are more solid and will keep better than ours. We run too much after large fruits. For several years this firm have shown their fruit at our fairs much to their credit. This has been more to show to their customers than with a view of premiums, and has been of advantage to all interested.

## The Dairy.

### The Geauga Cheese Factories.

The new system of making cheese in factories, is bound to revolutionize the dairy business on Western Reserve, if not in all cheese making districts of this country. The main features applicable to all these establishments, are the gathering up of the milk twice a day from the adjoining farms within a circuit of four or five miles, and even extending now in some cases to ten miles, receiving this fresh milk at the factory, setting the whole in large tin vats, curdling and handling it with nice precision as to uniform and excellent quality, pressing the curds into cheeses of uniform size to suit the market, and curing the whole in large, well ventilated rooms.

The great advantages of this system are an economy of labor, a uniformity and better quality of cheese over that of small private home dairies. At the factories, using the milk of five hundred to a thousand cows, one full hand will do the work for a hundred cows—that is eight men or able bodied women, will make the cheese from the milk of eight hundred cows. As an offset to this economy of manufacture, the gathering of milk must be considered. The act of milking is the same as for home manufacture: the milk goes from the bucket into the tin can by the road side, and this can goes on to the wagon of the milk carrier, with more of the same sort from other farms, unless the owner of the can sends the milk himself, which is sometimes done by those living near the factory. Thus the housekeeper is entirely rid of all the labor pertaining to the dairy, except the milking of the cows, and keeping the vessels clean.

Desiring to be better informed of the practices of these factories, we made a leisurely tour of those in the county of Geauga—five in number, where we were very kindly received and all suitable information imparted.

In Claridon, near the residence of Col. Spencer, is the new factory put up last spring, by Messrs. Hall & Parker. The factory receives the milk of 800 cows; the evening's milk is strained into vats, (containing 400 gallons, large beer measure,) where it is kept over night as cool as possible by letting a current of cold water from the spring run about the outer spaces of the vat; in the morning the top of this milk is all poured through a strainer, and the whole mixed with the morning's milk, and set to curdle. This practice is followed in all the Geauga factories.

Hall & Parker have been running on large cheese, 22 inch hoop, weighing from 130 to 140 lbs. but are now running on a contract for foreign market with 15 inch hoops, making a 70 lb. cheese. They will turn out some \$25,000 worth this season. Owing to the dry weather which prevailed during the mid summer, the cows fell off in their yield of milk, and were making an average of not more than a gallon, beer measure each, per day.

Anson Bartlett, who is the pioneer in this system of cheese making in Ohio, has his factory in Munson, a few miles to the southwest of the last named. Mr. Bartlett uses the milk from over 800 cows, which, having better pastures than those in Claridon, are making a better yield of milk. Here are

more complete buildings than at the newer factories; the curing house is 100 feet long, three stories high, including basement, and Mr. B. says when the season is over and the cheese sold, he will spread a feast for his friends and have a little light stepping in those ample halls.

At East Claridon is the factory of Armstrong & Chase, who are using the milk from 400 cows. Here the curd is handled a little differently from the others, in that it is cut up entirely with knives, instead of being broken with the hands after the first cutting, as is common in other factories. The result of this handling is that Messrs. Armstrong & Chase obtain a larger yield of cheese from the milk, going in some cases as high as 120 lbs. to the 100 gallons, while the general average is not over 105 lbs. This is a very tidy establishment, and the proprietors have gone into their work with a determination to succeed, and they will.

Budlong & Stokes, a firm from New York city, have a factory at Chardon, in what was formerly the old stone hotel. These gentlemen are both manufacturers and dealers, having a large sale house in New York. This factory was started last year and now uses the milk of 760 cows, and the proprietors purchase besides the cheese made from 700 cows, made to order, in private dairies of the neighborhood; this makes a business altogether of \$100,000 for the season—a fair item for a rural village like Chardon.

L. J. Randall of Chardon has started a cheese factory in that place, which differs from all others in some leading particulars. Mr. Randall is a resident dealer, with all the capital he needs and a perfect knowledge of the market. He has converted a building of his formerly used for a tannery, into a factory, buys the milk from 300 cows, makes a neat cheese of 65 to 70 lbs. in 15 inch hoop. Mr. Randall's practise is more like the Cheshire or Cheddar method than any other of our Ohio factories. The curd is cooked more and cut very fine, so that the press does not make a tea-cupfull of whey. The cheese is very compact and free from large cavities, and cures with little shrinkage—not more than three per cent., while the average shrinkage of dairy cheese is from eight to twelve per cent., of factory cheese four to six per cent. Mr. Randall having been a dealer in the English market, imported samples of the most popular Cheshire cheese, from which he modelled his own, with which he intends to go into the English market this fall.

In all these factories, except Budlong & Stokes, there is a strong flowing spring of pure water, which is used in cooling or heating milk, as desired, and in washing the premises, which require constant care to keep off foul odors. For this latter purpose, a gutta percha hose is attached to the steam boiler, by which a stream of hot water is spouted into every nook and corner, every day, Mr. Randall sands his floor while running up the curd, by which he secures a thorough scouring and cleansing, leaving it perfectly sweet and clean.

All of these manufacturers are in the transition state—trying experiments—adopting or rejecting as the results warrant. Cheesemaking is so much of a chemical process, that it requires a very nice manipulation and careful watching. Mrs. Hall remarked very truly—"You cannot make cheese on paper—nothing but practice will do it."

J. B. Lukens at East Claridon is a large dealer in

dairy cheese, and showed us a nice lot which he has in store, being the produce of over thirty dairies of twenty cows each. This dairy cheese now commands nine and ten cents per pound; the factory cheese is held at eleven to thirteen cents.—*Ohio Farmer.*

### Cheese Making.

*To the Editor of the Illinois Farmer :*

Your strictures in regard to the selling of cheese is very sound. That there is a large amount of poor cheese sent to market we need not deny. Illinois cheese takes its place in market according to its merit, not according to the location of its manufactory. Many farmers think they can make cheese without any outlay or information except what their wives know by intuition, and think their wives can take care of half a dozen children, three or four men, do their work alone, and make cheese without the first suitable apparatus to do it with, with no room but a pantry or room over the wood house to cure them in. It costs no more to make good cheese than poor; not as much if you have the proper fixtures and curing room—all of which are absolutely indispensable to a good article.

There are many good dairies in our State, all of which obtain the highest price for their cheese, mainly to the retail dealer and the consumer.

Yours,

S. D. P.

### To Clean Canary Birds,

These pretty things are like meaner objects, often covered with lice, and may be effectually relieved of them by placing a clean white cloth over their cage at night. In the morning it will be covered with small red spots, so small as hardly to be seen except by the aid of a glass; these are the lice, a source of great annoyance to the birds.

**BEE CULTURE.**—We are promised a series of common sense articles on bee culture, based upon the use of the movable frame hive.

At the State Fair the committee awarded the second premium on a new fangled hive. The only wish we have is that the committee shall be obliged to use it for the next five years, which, doubtless, will open their eyes a little wider than usual.

### A Curiosity.

Mr. P. M. Gilbert has shown us the decayed portions of a cedar log, discovered twenty feet below the surface in sinking a well near the Plow Factory of Gilbert & Hamilton. The wood falls apart on the line of the annual rings, but there are axemarks upon it as distinct as if made yesterday. Query—When made and by whom?—*Henry County Dial.*

## Miscellaneous.

### Flesh in Vegetables.

All vegetables, especially those eaten by animals, contain a certain portion of flesh; for instance, in every hundred pounds in wheaten flour, there are ten parts flesh; in a hundred of Indian corn meal, there are twelve parts of flesh; and in a hundred of Scotch oatmeal, there are eighteen of flesh. Now, when vegetable food is eaten it is to its fleshy constituents alone that we are indebted for restoring to the body what it has lost by muscular exertion. "All flesh is grass," says the inspired writer, and science proves that this assertion will bear a literal interpretation. No animal has the power to create from its food the flesh to form its own body; all that the stomach can do is to dissolve the solid food that is put into it; by-and-by the fleshy portion of the food enters the blood, and becomes part of the animal that has eaten it. The starch and sugar of the vegetable are either consumed (burned) for the production of warmth, or they are converted into fat and laid up in store as future food then required. Grass consists of certain fleshy constituents, starch and woody fiber. If a cow, arrived at maturity, eats grass, nearly, or the whole of the food can be traced to the production of milk; the starch of the grass goes to form fat (butter) and the flesh appears as casein or cheese. When a sheep eats grass, the flesh of grass is but slightly modified to produce mutton, while the starch is converted into fat (suet.) When a man eats mutton or beef, he is merely appropriating to his own body the fleshy portion of grass, so perseveringly collected by the sheep and oxen. The human stomach, like that of the sheep or ox, has no power to create flesh; all that it can do is to build up its own form with the materials on hand. Iron is offered to a workman, and he builds a ship, makes a watch spring, or a mariner's compass, according to his wants; but although he alters the form and texture of the material under his hand, yet its composition remains the same. So as regards flesh, although there be but one "flesh of man, another of beasts, another of fishes, and another of birds," yet their composition is the same, all of which can be traced to the grass of the field or a similar source. Flesh, then, is derived from vegetables, and not from animals; the latter being only collectors of it. And, as although the plant knew that same future destiny wanted the flesh which it makes, it will not use a particle of it to construct a leaf, a tendril, or a flower, but lays it up in the seed.

### The Hammer Mightier than the Pen.

We read that the pen is mightier than the sword; reasoning metaphorically the statement is true. But the hammer is more powerful than either, by the arguments that deeds are more powerful than words. The pen inspires man to great efforts by the glowing words proceeding from it. The sword hacks and carves a brilliant fame for him who wields it: but before its advance the nations of the world shrink back in dread, and women and children cower in fear. By the light of the bursting shell, or the glare of dwellings in flames, it stands out and gleams balefully against the sky, and only over human anguish and agony does it stride to triumph and renown.

Whoever feared the hammer, or its deeds. Those who rush across the plains of the West, or the hills of the East; they who plow the waters of the rivers or the ocean: these experience the triumphs of the hammer, know well its power, and how indispensable it is. The pen may stimulate and incite to greatness, but it cannot achieve it; the sword bends all things to its will, but it burns like a consuming fire, and mankind writhes in agony before it. Only the hammer is all-powerful and peaceful. By it thousands live and grow rich. With it men amass wealth and build up the bulwarks of the nation; hunger is kept at bay and famine put to flight; peace exalts her head, and hard-fisted toil find no time, leisure nor inclination to wreath the brow of Mars. The pen bows to the hammer and does it homage. A man may live in physical comfort without a book in the house, but he cannot exist without being in debt to the hammer, and indites eulogiums upon its numerous achievements; few are the monuments the hammer deigns to raise in honor of literature. The pen is mightier than the sword, because it achieves its object through reason and not force, and also in that it is infinitely more civilizing and humane in its effect upon the world; but the hammer conquers even more territory than the pen, and is, in its way, invincible. No country is too remote, or any wild too savage to resist its weight, nor any metal, wood or vegetable powerful enough to defy it. Without the hammer—a symbol of toil, as the pen is of thought, and the sword of violence—the busy world could not exist in comfort or refinement.—*Scientific Am.*

### Household Machines.

The Scientific American in speaking of the Fair of the American Institute, says:

The inventor has invaded the hitherto 'tabooed' precincts of the kitchen, and the consequence is that Bridget has had her work so much lessened in quantity, and the remaining portion so robbed of terrors, that she incontinently demands higher wages at once and forthwith. This, we take it, is a striking proof that inventions, instead of decreasing the value of labor, enhance it. We take great interest in this department, as there is yet a wide field for the introduction of mechanical assistants. May the day soon come when some automaton shall reign in the culinary department, which shall be without "cousins," and also devoid of what is tersely known as "lip." Washing machines are present in large numbers, some of the inventors being Doty, Huffer, Avery, Heckrotte,

and Cyphers. Our space will not admit of individual notice: but we presume when ladies enter the arena of invention the sterner sex will give way and allow us to notice theirs alone. The machine in question has a vibrating motion, communicated from a corrugated round-bottomed box or tub; this rolls over corrugated surfaces at the bottom, and doubtless does the work satisfactorily. The washing machines present are in operation, and housewives can satisfy themselves of their utility. There are also a number of mincing machines on exhibition, as also a dog power, intended to utilize the hitherto wasted energies of this animal, and to compel him to make the butter of his master by the sweat of his body. Fish's kerosene lamp heater is one of the most popular novelties of the day, to judge of the throng around it: the utility of it is unquestionable, and a great saving is experienced in heating and cooking small articles. So great is the amount of caloric given off by this oil, during combustion, that the apparatus in question, by a very simple arrangement of heaters and flues, can be made to cook meals for a great many persons, and this is actually done on an ambulance car on one of the railroads out of Baltimore. Clothes wringers are also extensively exhibited, and are meeting with a rapid sale. As yet patent churns are not numerous, but we noticed one which had a novel arrangement for breaking up the butter globules in the cream. It was simply two skeleton screws or ribs, wound spirally around shafts: these screws ran in opposite directions, so that the cream introduced to their attention would doubtless have a very unhappy time.

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From the Country Gentleman.

### How to Keep Sweet Potatoes.

EDS. CO. GENT.—I noticed some time since in your paper, an inquiry, "How to keep Sweet Potatoes." I will endeavor to give the mode practiced in this, the heaviest sweet potato growing county in the Union. When it is desired to keep but a few, barrels or dry-goods boxes are used. Place 3 by 4 pieces upon the floor, set the box upon them, a few dry leaves in the bottom of the box, pour in the potatoes, which should be exposed to air only long enough to dry off outside moisture, and all cut or eaten ones taken out. When the box is full, put a few dry leaves on top, cover loosely with the lid, leaving spaces for the moisture to escape. Place another box on top of it, and proceed to fill in the same way. The potatoes should be put at once where they are to remain—not left three or four days and then moved.

If the desire is to keep a quantity, houses are built of any desirable size, say 30 by 36 feet, of frame, two stories high, brick paned, and plastered—if a very dry situation, a cellar under—the floors not extending out to the walls by four inches—place 3 by 4 pieces against the walls of each story; board up to them 5 or 6 feet high; put dry leaves upon the floors, and then pour the potatoes upon them to the depth of about five feet, and cover over with dry leaves or straw. It is best to have loose boards the whole length of the room to put up to make bins four or five feet wide, for convenience in putting in and taking out. The lowest story that is used, must have dead air spaces under the potatoes—4 by 5 pieces laid down, and loose

boards laid on them, on which the potatoes must be put,

The cellar will not keep them well unless very dry. While the house is filling, the door and windows must be kept open and the fire going. As soon as placed in the house the potatoes will commence "sweating," when every effort must be made to keep them well ventilated and dry. After the "sweating process" has gone through with, close the windows and shutters, except one window down a little for ventilation, and keep dark.

The stove must be placed in the lowest story used; the heat will flow through the dead air spaces between the walls and the potatoes, so that the upper rooms will be warmer than the lower. The heat should be kept at about 60 degrees.

Dig the potatoes before touched with frost, although a slight frost to kill leaves will not hurt. Potatoes to keep well, should be grown upon a dry land. The chief sources of success are—ventilate well while sweating, keep regular heat, and exclude air and light.

If your correspondent desires to keep but a few for family use, any room in which the temperature is not allowed to fall below forty degrees will answer, although there will be some smell from them, especially if they do not keep well. J. G. W.,  
Gloucester co., N. J.

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### Tree Cotton.

In our dispatch in regard to the frost some days since, in noting the destruction of the "Tree Cotton," the types made it read "free cotton," much to the muddling of those who have the idea that there is but one species of cotton. We will therefore clear up the mystery. Free cotton belongs to the politicians, and is not known on our plantation. Herbaceous cotton is the annual cotton of commerce grown in what is termed the cotton States, and is a valuable and profitable crop in the south part of our own State, and is becoming one of the staple products of at least the timber portion of Egypt. The Tree Cotton is a native of Peru, and is a perennial shrub producing annual crops of cotton, similar in staple to the common upland annual cotton of the temperate zone, but is only grown in the tropics.

Some enterprising parties imported a large quantity of this Tree Cotton seed, and by dint of liberal advertising have made extensive sale of dollar packages of the seed, every package "warranted genuine, and adapted to the climate, perfectly hardy and immensely productive." This is the cotton that has, as we predicted, proved a humbug. We have about a dozen plants in the green house, some of which are three feet high, and which we intend shall yet produce cotton, but not by out door culture. It will thus be seen that there is a wide difference in the adaptability of the two kinds of cotton to the North.

Some few years since a man by the name of



Kendall introduced the seed of the Tree Cotton and made an effort for its sale, but he very foolishly attempted its culture himself, to demonstrate that it could be grown as far North as Baltimore, but the first cold night laid out his plants and the humbug collapsed, but these later geniuses, profiting by his failure boldly asserted that it was proof against the frost of our winters, that they had seen it grow high up on the Andes, clothed with flocculent fiber and its green leaves glistening out from the winter's snow, with the thermometer below zero. Of course it must be hardy somewhere, but not on the prairies of Illinois. Who will give us the next agricultural humbug?

### The Cold Summer of 1816.

The summer of 1816 is frequently referred to as the coldest ever known throughout America and Europe. The subjoined facts will revive the recollection of those who remember the year *without a summer*, also to furnish correct information for such as feel any interest in matters of the sort. The following facts are extracted in part, from "Pierce on the Weather."

January was mild, so much so that fires were almost needless in sitting rooms. December, the month immediately preceding this, was very cold.

February was not very cold, with the exception of a few days, it was mild like its predecessor.

March was cold and boisterous, the first half of it, the remainder was milder. A great freshet on the Ohio and Kentucky rivers, causing great destruction of property.

April began warm, and grew colder as the month advanced, and ended with snow and ice, with a temperature more like Winter than Spring. An inundation on the Mississippi, laying the suburbs of New Orleans under water, rendering the roads passable only by boats.

May was more remarkable for frowns than smiles. Buds and fruits were frozen, ice formed half an inch in thickness, corn was killed, and the fields again and again replanted until deemed too late.

June was the coldest ever known in this latitude. Frost and ice and snow were common. Almost every green herb killed, fruit nearly all destroyed. Snow fell to the depth of ten inches in Vermont, several inches in Maine, and it fell to the depth of three inches in the interior of New York; it also fell in Massachusetts.

July was accompanied by frost and ice. On the morning after the Fourth, ice formed of the thickness of window glass throughout New England. New York, and in some parts of Pennsylvania, Indian corn all killed, some favorably situated fields escaped. This was true of some of the hill farms of Massachusetts.

August was more cheerless, if possible, than the Summer months already passed. Indian corn was so frozen that the greater part of it was cut down and used for fodder. Almost every green herb was destroyed both in this country and in Europe. Papers received from England, stated—"It will be remembered by the present generation, that the

year 1816 was a year in which there was no Summer." Very little corn in New England and Middle States ripened. Farmers supplied themselves from the corn produced in 1815 for seed in the Spring of 1817. It sold from four to five dollars per bushel.

September furnished about two weeks of the mildest weather of the season. Soon after the middle it became very cold and frosty, ice forming a quarter of an inch in thickness.

October produced more than its usual share of cold weather; frost and ice very common.

November was cold and blustering. Snow fell so as to make sleighing.

December was mild and comfortable.

Such is a brief summary of the "Cold Summer of 1816," as it was called, in order to distinguish it from the cold seasons. The Winter was mild, frost and ice were common in every month in the year. Very little vegetation matured in the Eastern and Middle States. The Sun's rays seemed destitute of heat throughout the Summer; all nature was clad in a sable hue, and men exhibited no little anxiety concerning the future of their life. *Portland Price Current.*

From the Christian Advocate.

### "Stick to the Farm."

DR. EDDY.—In the "Advocate" of the 23d of September, I find an article headed "Stick to the Farm." After reading the piece over, I came to the conclusion, that a little advice in a little different direction would tend to make more farmer's boys "stick to the farm" than a whole volume of exhortations written on the above mentioned subject.

To begin, let us ask some of them why they do not like to stay on the farm? You will find the usual reply to be, that they do not like farming; that it is no place for enjoyment, and that they are deprived of a great many privileges that boys who are not farmers, enjoy. And why this dislike to an employment so lucrative, healthful, and one that should, if it does not, yield employment and happiness. I will just say, that many farmers are so close, and their work is always so hurrying, that they never allow their boys any means or time for recreation, except it be Sundays, and sometimes they do not get that. Now when these boys become of age, they not unfrequently commence life with no competency whatever. Brought up to labor early and late, from one end of the year to another, is it any wonder if they should look upon farming as a life of unceasing toil and drudgery? I do not wonder at their deciding to leave the farm, and seeking to find in other places what they have not found upon the farm, i. e., a life of enjoyment and comfort.

Farmers, do you wish your boys to "stick to the farm?" then you must teach them that enjoyment is to be found upon the farm, and to do this you must get them interested in the work, give them time and opportunity for wholesome recreation; and above all, give them a start in what is called this world's goods!—a small garden spot, a corner in the corn-field, or an interest in the stock, such as a pig, calf, or colt, or something of the kind, which they can call their own. These may



increase on their hands, and thus they will have a growing interest upon the farm, and when they are ready to start in life for themselves, they will have acquired considerable skill and tact in managing the affairs of the farm.

At an early age boys prize what they can call their own very highly, and by beginning early in life you can throw around them ties that will bind them so strongly to the farm, that they will never be broken. And there are other ties besides those of a pecuniary nature, which we would invite you to try—make home pleasant. Be cheerful (some of the time at least), always be ready to contribute your share for the enjoyment of your children; let them feel that you are interested in their welfare, and when they have grown to be men and are settled in life, you will see that, by the blessing of God, the seeds of sunshine you have sown in their hearts in bearing fruit, and you will rejoice when you behold that you have not labored in vain.—M.

### Orchard House at Hightstown, N. J.

BY AN EAST PENN. FRUIT GROWER.

Isaac Pullen, Esq., the well-known nurseryman and peach-grower, at Hightstown, N. J., has an orchard-house, 100 feet long by 14 feet wide, which has fruited for two seasons with a very encouraging degree of success. The house is a lean-to, cheaply built, very nearly according to the directions given by Mr. Rivers, in his work on this subject. It is heated by hot water pipes, which probably makes it, in the opinion of many, not an orchard-house, but a forcing peach-house. Still it may be called an orchard-house with heating apparatus.

About the first of August, the writer visited Mr. Pullen to see how he was getting along with his new house. We found the peach and nectarine trees nearly all turned out of the house into the garden, in pots, and the fruit nearly all gone. Some dozen or more trees of the late kinds, were, however, still laden with fruit, of fine size, magnificent color, and nearly first rate quality. Mr. Pullen informed us that he had as large a crop of peaches and nectarines as the trees could bear, much of which he sold in New York and Philadelphia, at very satisfactory prices. The Apricots did not fruit successfully. The house was kept very moderately heated all winter, and the early peaches began to ripen about the 26th of June.

Mr. Pullen cultivates all his trees in pots, 9 to 14 inches in diameter, and plunges the pots in soil of very moderate quality, two-thirds their depth, moving them slightly once in a week or two, to keep the roots from extending beyond the pots. He uses as potting material, loam, sods, sand, rotten dung, etc., potting very firmly, and employs a good deal of liquid barn-yard manure. His stopping and pinching is not quite so close as Rivers directs in his later writings. He gives abundance of air and water, and transfers his trees to the open garden as soon as the fruit begins to color, plunges the pots and mulches them.

The success attained by Mr. Pullen is certainly complete, or at least all that can be expected. The crop of fruit on the best peach and nectarine trees had to be thinned more than one-half; the balance ripened well with the most brilliant color and

bloom, and nearly the highest flavor. From four to six weeks were gained in the period of ripening.

Mr. Pullen cultivates the peach, as nursery stock, on a large scale, and also orchard-house trees in pots, cut back and pinched, so as to be ready for immediate fruiting.

As the result of our observations, we formed the opinion that a heated orchard-house may be made entirely successful, in this climate; and that it would be an elegant and not very costly luxury in a gentleman's garden—not more costly or troublesome than foreign grapes or flowers under glass, and quite as gratifying.—*Gardener's Monthly*.

**BODILY CARRIAGE.**—Instead of giving all sorts of rules about turning out the toes, and strengthening up the body, and holding the shoulders back, all of which are impracticable to many, because soon forgotten, or of a feeling of awkwardness and discomfort which procures a willing omission; all that is necessary to secure the object is to hold up the head and move on, letting the toes and shoulders take care of themselves. Walk with the chin but slightly above a horizontal line, or with your eye directed to things a little higher than your own head. In this way you will walk properly, pleasantly, and without any feeling of restraint or awkwardness.

If any one wishes to be aided in securing this habitual carriage of body, accustom yourself to carry your hands behind you, one hand grasping the opposite wrist. Englishmen are admired the world over, for their full chests and broad shoulders, and sturdy frames, and manly bearing. This position of body is favorable with them, in the simple promenade in the garden or gallery, in attending ladies along a crowded street, or in public worship.

Many persons spend a large part of their walking existence in the sitting position. A single rule well attended to in this connection, would be of incalculable value to multitudes—use chairs with the old-fashioned straight backs, a little inclining backwards, and sit with the lower portion of the body close against the back of the chair at the seat; any one who tries it will observe in a moment a grateful support to the whole spine. And we see no reason why children should not be taught from the beginning to write, and sew, and knit, in a position requiring the lower portion of the body and the shoulders to touch the back of the chair all the time.

A very common position in sitting, especially among men, is with the shoulders against the chair back, with a space of several inches between the chair back and the lower portion of the spine, giving the body the shape of a half hoop; it is the instantaneous, instinctive and almost universal position assumed by any consumptive on sitting down, unless counteracted by an effort of will; hence parents should regard such a position in their children with apprehension, and should rectify it at once.—*Hall's Journal of Health*.

**THE STATE FAIR.**—We have not the space this month to give a full report of this Fair, as the State Horticultural Society Fair occupies so much of our columns, but shall attend to it next month.

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, NOVEMBER, 1863

Where are we drifting, and where will we land, are now all absorbing questions. The war continues—our young men are melting away like dew before the Sun, and the national debt is rolling up its dark masses, and yet money is abundant—a constant river of it flowing, or what must pass for money. Prices of all commodities have assumed portentous magnitude, with still an upward tendency, the great staples of the West have fallen short and we stand in the midst of uncertainty. The close of the war, the price of the present crops, and the yield of the next are important questions that time can alone unravel. We can only wait with patience for the unfolding of the results, results that may stagger us before another year has rolled around.

Of one thing we feel assured, that this rebellion will be crushed out, whether it requires six months or six years. The genius of the age is for free labor, and the Anglo Saxon will carve his way to that result. The Negro must and will be crowded South, his habits and this climate are not for him, and he is of little value for himself or others unless compelled to labor. As fast as it is possible he will push South to Central America to fulfil his destiny, thus producing a revolution in the industrial pursuits of the age.

The drouth and frost of the season has made it historic, and not soon to be forgotten, especially in Central Illinois and the basin of Egypt. There is one course for every farmer, and which at this time is not safe to depart from, and that is to pay up old debts as far as possible, and not to make new ones that can be avoided, living strictly within your means, making such improvements as are needed, more especially in tree planting, for while almost everything else has largely advanced, fruit, shade and ornamental trees, plants and shrubs can be had at nearly or quite the old prices. Although lumber is high as compared with the past few years, yet we do not look forward to any falling off in the price, as the former price was ruinous to lumber interest.

**THE COTTON CROP.**—On the timbered portion of Egypt we learn from those in attendance at the State Fair that the cotton crop will not prove so great a failure as supposed at the time of the frost,

but will yield from one to two hundred pounds to the acre.

**CARD OF THANKS.**—In behalf of the Executive Committee of the Illinois State Agricultural Society, I desire to tender thanks to the press of Illinois and Missouri for elaborate and interesting reports of the late Trial of Implements and State Fair at Decatur, and to acknowledge the obligations of the Society and of the farmers of Illinois generally, to the able corps of reporters, who labored with great industry to make faithful record of each day's proceedings.

JOHN P. REYNOLDS,

Corresponding Secretary Illinois State Agricultural Society.

SPRINGFIELD, October 5, 1863.

**PAINFUL BEREAVEMENT.**—While our Western Editor, Mr. C. D. Bragdon, was at Decatur, attending the Illinois State Fair, a telegram summoned him to attend the burial of his only son—between four and five years of age—who was drowned at Pulaski, Oswego county, New York, where he had gone with his mother to visit relatives. The bereavement is a very sad one, and awakens the profound sympathies of the many relatives and friends of the parents.—*Rural New Yorker* October 10th.

We deeply sympathize with the bereaved parents in their sore affliction. We met our friend Bragdon but a few hours previous to the receipt of the unwelcome news. He had just received a letter from his wife stating that herself and little ones were in excellent health, and enjoying themselves very pleasantly in their visit, and so soon as the Fair closed he should join them for a few days, and then return home. Fond hopes of pleasant greetings were all too soon dashed to the ground. When a boy we came near our untimely end near the same place, to which we look back with a shudder.

**CHAMPAIGN COUNTY FAIR.**—This Fair was a great improvement over last year. The show was not large, but the attendance good. The new management if continued will bring the Fair among the best in the State.

**VERMILLION COUNTY FAIR AT CATLIN.**—This was largely attended though the show was not large. We were on the ground but part of a day. The grounds are beautiful and the managers in earnest to make it a successful institution.

**WHEEL REVOLVING RAKES.**—We saw several of these at the State Fair, but the one by Furst & Bradley, of Chicago, was a long ways ahead with

the blue ribbon flouting at the head. This Rake of F. & B. has been gradually replacing all of the old style of rakes in all the district near Chicago, and will now be extended to other parts of the State. The cost has been in the way of a more rapid introduction, but the farmer who has any amount of hay to rake will find it the cheapest. Let us figure a little. We have a common revolving wire rake which cost twelve dollars. This requires a man or two boys to manage and will rake tweve acres in a day. The one on wheels will rake five acres more in the same time with the assistance of only one boy, putting the man and horse at one dollar and fifty cents a day, the cost of raking is twelve and a half cents an acre. Reckoning the boy and horse at a dollar a day and we reduce the cost to six cents an acre or a saving of over a dollar a day. But this is not all. With the wheel rake we can divide the windrows and place the hay ready for cocking up, or if hauled at once admitting of a large saving of labor, which is more than equal to the saving in raking. If we make our comparison with the horse rakes in common use, the difference will loom up in much larger proportions. One of these rakes, if well housed, will last a long time, probably, with slight repairs, fifteen to twenty years. In this connection we have not estimated the pleasure of working with this implement over those of the old model, or if the fact that the wife or daughter can, in case of necessity, have a sulky ride in the hayfield at a large profit in rosy cheeks and dollars and cents. Haying with one of the improved mowers, a sulky rake and a hay pitcher has been raised to the grade of a science and become a pleasure instead of the most arduous toil. We have several kinks in our back made by the old scythe and pitchfork, that will always remain by us, but now happily relieved from further strain and wear in the same direction. Thus one by one come the lessons of farming made easy, by the introduction of new labor saving implements.

ILLINOIS CHEESE.—It is time that the dealers in Illinois cheese were taught a lesson that would be of value to the trade. What has been passed over as a clever trick of the trade has now been endured a sufficient length of time to call it by some other name. The Chicago daily press are trading themselves to the dealers, innocently no doubt. We propose to show the thing in its true light, and will begin with the market quotations from the *Chicago Tribune*:

CHEESE — Market active and prices rule firm. Hamburg and Western Reserve in fair supply. We quote :

Hamburg.....	14 @14½
Western Reserve.....	13½@14
Illinois and Wisconsin.....	9 @11

The following quotation from the *Times* :  
CHEESE — The demand continues good and the market rules very firm, and prices are advancing, and are ½@1c higher. Advices from New York quote a firm and active demand, and considerable quantities have been taken for shipment to the English colonies and to the Federal Army stations southward. Prices in New York are firmly maintained. Our maket is almost bare of Western Reserve, and quotations are nominal. Illinois, Wisconsin and Iowa Cheese is in good request. We now quote:

New York, Hambug.....	13 @13½c
Western Reserve.....	12½@13c
Illinois, Wisconsin and Iowa.....	10 @12c

The following from the *Merchants Circular*:  
CHEESE — New Illinois, 9@11c; Hamburg, 13@13½c; Western Reserve, 12½@13c.

The facts in the case is just this: The price of Hamburg and Western Reserve are those to retail dealers now being purchased here by cheese houses, while on the other hand Illinois, Wisconsin and Iowa are quoted at the price paid by cheese houses and is not that at which it is sold to retail dealers and consumers. This is an iniquitous distinction that should be abated. Another truth is that all of the last Illinois and Wisconsin dairies are sold with the Hamburg brand, thus defrauding the good name of our Eastern cheese. This in the house of its friends is rather unkind. We know there is a large amount of poor Illinois cheese sent to market, but this should not detract from the good. All we ask is fair play.

The *Prairie Farmer* ignores cheese in its market reports.

Were we making up the market reports for a commercial paper it would read thus:

CHEESE — Dealers in cheese obtain part of their supplies in Ohio and further East; also from dairies in Illinois, Wisconsin and Iowa, which are sent here and sold on change. Boxes are extra, generally a cent a foot.

All No. 1 cheese, without regard to location, is marked Hamburg, and is sold to retail dealers and consumers by the single cheese or more.

No. 2 is in like manner marked Western Reserve, and No. 3 is sold as Illinois and Wisconsin. These are fictions of the trade not at all creditable.

We quote selling:

No. 1 .....	14@14½
No. 2 .....	13@14
No. 3 .....	9@11

Eastern cheese is brought here by dealers, who pay 9@12 for that sold on change, including Illi-

nois, Wisconsin and Iowa, as there is no wholesale market here for Eastern cheese.

Large numbers of our Illinois cheese now go directly into the hands of the retailer and the consumer, and will continue to do so until the trade is a little purified of its obnoxious terms and practices.

**FROSTED CORN.**—The damage by the frost of August is footing up more disastrous than was at first feared even by the most ultra alarmist. The city papers insisted that the clearing up would make a brighter show, but it has gone from bad to worse. Late Spring frosts are to a large extent overcome by a good growing season, while early Autumn frosts have a retrograde tendency.

**THE LATEST DODGES ON TREE SELLING.**—The last dodge that we have heard of is selling bearing trees to be delivered to the customer at twenty-five cents each. The sales are limited, as most farmers are not quite so big fools as to swallow the bait. Two men have been canvassing Champaign county as agents for the Bloomington nurseries having a Toledo catalogue, and one of ours. They propose to fill all orders. At our County Fair we asked one of these worthies (by the way he has lost one arm) to show his authority, but he had none, and from his general ignorance in regard to the nurserymen of Bloomington we put him down as bogus. We trust the fool killer will not come this way until the people take to reading agricultural journals. The game of this kind is nearly up, and these scamps will have to go to work or steal for a living.

If people would dispense with peddlers of all kinds they would save an average of twenty-five per cent. on all they purchase of them.

Last week we heard of a man selling strawberry plants from China(?) He had three of the berries in a bottle, which common people pronounced Willson's Albany, but which he said were not so, and that they would yield not less than four hundred bushel to the acre, and that a bushel of them could be picked in fifteen minutes by one person. A friend of ours endeavored to persuade him to make us a call as we were sure to invest in all new and valuable things, but it was no go, and we have lost a famous opportunity to sketch a live humbug.

### List of Entries and Awards on Implements at the Decatur Trial.

#### *Plows — Gold Medal.*

John Dement, premium, Dixon, Ill.

C. H. Dever, Moline, Ill.

Dickinson & Orahod, Clinton, De Witt County.

#### *Gang Plows — Silver Medal.*

Jacob L. Runk, premium, Nashville, Washington County, Ill.

W. L. Black, Lancaster, Cass County, Ill.

J. G. Robinson, Springfield, Ill.

J. & G. Leibut, Ashley, Washington County, Ill.

#### *Trench Plows — Silver Medal.*

W. J. Black, premium, Lancaster, Ill.

J. G. Robinson, Springfield, Ill.

Both of the above were attachment to gang plows, by taking off one of the plows and attaching the trench plow behind the other.

#### *Two-Horse Cultivators — Gold Medal.*

Barber, Hawley & Co., premium, (Stafford's patent), Decatur, Ill.

Pratt & Parker, (Morton Cultivator), Morton, Tazewell County, Ill.

Faust & Bradley, Chicago, Ill.

A. J. Sparks, Wyandott, Bureau County, Ill.

W. D. Dorsey, Decatur, Ill.

C. H. Deere, Moline, Ill.

Gilbert & Hamilton, (Brown's patent), Kewanee, Henry County, Ill.

#### *Corn Planter — Silver Medal.*

Selby & Elder, premium, Peoria.

J. Armstrong, premium, Elmira, Stark County, Illinois.

J. C. Moore, Peoria.

Haworth & Co., Springfield.

McGoffey & Co., Chicago.

#### *One-Horse Corn Planter and Cultivator.*

Maple & Co., Chicago.

No competition. Commended.

#### *Field Roller.*

C. D. Roberts, Jacksonville.

Wood drum, in two sections. Not commended.

#### *Coulter Harrow.*

G. P. Lawrence, (B. W. Speers' patent) Pana.

Not commended.

#### *Seed Drill and Roller.*

W. B. Quarton, Carlinville, Macoupin County.

This is a corrugated roller. Not commended.

#### *Broadcast Sower and Cultivator.*

Allen & Warren, Chicago.

Sows corn. Cultivators clog. Not commended.

#### *Nazarine Corn Plow and Drill.*

J. Parsons.

Not commended. Not entered for a premium.

*Rotary Spader.*

C. Comstock, Milwaukie, Wis.

Not entered for a premium, it having been delayed too late for trial.

*Corn and Cane Cutter.*

W. M. Mason, Polo, Ogle County.

Commended.

*Sod and Broadcast Sower.*

Hon. J. B. Duane, Schenectady, Ky.

This come too late for a thorough trial. Commended as promising well.

*Ditching Machine for Open Ditches — Silver Medal — Illinois Central Railroad Premium, \$2.50.*

Griggy & Wiggins, premiuni, Blackby, Kane County, Ill.

By the rules, none except the ditching machine could be awarded a premium, unless two or more machines were entered.

The trial of the above machine was a thorough one, so far as it was possible to make it so, and as the Report will soon be revised and published, we prefer to await its publication rather than to comment on it at this time. Being a member of the committee, and endorsing it, it is proper to pass it over for the present.

### Macoupin County Fair.

We attended this Fair at Carlinville for the purpose of delivering the annual address, and had the pleasure of meeting N. J. Coleman, Esq., Editor of the *Valley Farmer*, who also addressed the farmers on the occasion. C. D. Bragdon, the Western Editor of the *Rural New Yorker*, was also present and addressed the farmers at the Court House in the evening. Altogether the good people of Macoupin had an abundance of speaking during their Fair, and will be able to decide whether this feature should be made permanent.

We have never had a high opinion of the value of public addresses at fairs, though we have had large and attractive audiences. Some of our societies have a rule that the President shall deliver an address or procure one to be delivered, and we learn the rule is working well thus far.

This Fair was well attended, and the show in many respects good. We think our societies will have to discontinue the practice of charging exhibitors entry fees and percentage, as we are satisfied that it is in the way of a good show, at least in the main departments. Each county should foster these societies by making annual appropriations for premiums. In this way they will encourage and develop the resources of the county, thus


increasing the taxable property and in the end benefitting the county revenues.

Macoupin county is famous for her horses, of which a large representation was on the ground. In the stock department were several fine Durhams. Mr. A. Ballinger had a pen of Merino sheep, which probably have no superior in the State.

The fruit department was well represented. I. A. Pettingill, of Bunker Hill, and J. Huggins, of Woodburn, showing large collections of apples, pears, etc.

Mr. Pettingill showed his "Meads Seedling" Grape, which so closely resembles the Catawba in bunch and foliage that the best judges cannot distinguish them. But there are other characteristics that would appear to prove that they are not identical. Mr. P. says they neither rot or mildew, and that it is almost impossible to propagate them from cuttings, and that layers and single eyes in pots under grass must be resorted to. That the fruit is equal to the Catawba there is no doubt, and should it continue exempt from the rot and mildew, it will be the most popular grape of the day, for the Catawba, with all the above drawbacks, is probably more largely cultivated to day than any other grape. We shall order some of the plants for the purpose of giving them a trial.

The officers of this society are an energetic set of men, fully imbued with the spirit of progress, and richly deserve the thanks of the people of the county for the able manner in which they manage the affairs of the society. Macoupin is one of the largest counties in the State, being twenty-four by thirty-six miles, and containing eight hundred and sixty-four square miles, and is often called the State of Macoupin. It is one of the oldest and wealthiest counties in the State.

 A new feature will be introduced in the forthcoming Report of the Department of Agriculture, consisting of the engravings of animals, plants, etc., drawn from nature, by a competent artist. It will be the most interesting work of the kind yet issued, and besides the usual articles on agriculture, will contain the reports of the chemist and the Professor on entomology connected with the department. The work is being stereotyped, and will probably be published about the first of November. Mr. Isaac Newton, the commissioner, is doing all he can to bring it out as speedily as possible. Mr. Sanders has charge of the experimental garden of this department.

**THE PRACTICAL SHEPHERD.**—We have received an advance copy of the above work, but too late for a proper notice in the November number. From the well known ability of Mr. Randall, there can be no doubt of a high practical value to the work. See advertisement.



COMSTOCKS ROTARY SPADER — *Dear Sir:* I saw the Spader for the first time on the Fair Grounds, and was pleased with its work, but was told that Mr. C. did not enter it at the trial for fear that it would not stand the test of the committee, who, I understand, put all these new implements through on their paces.

Can you give me any information in regard to this new implement?

MENDOTA, October 5, 1863. D. S.

The Spader was delayed so that it did not reach Decatur in time for the trial, or it would have been put *through on its paces*. Last Fall we tried one of them to a limited extent, the season was late and the ground a mortar bed in which the teams sunk to their fetlocks. In the Spring we re-plowed this land with that adjoining, all of which had been cultivated alike, and this Summer there was a marked difference in the crops, which could be readily seen a distance of eighty rods. We have formed a high opinion of its value, should it cost as much per acre to cultivate with the Spader as with the plow, we think the increased crop will warrant the outlay. Were it not that most of our grounds are in orchard or nursery, we should order one of these Spaders.

Mr. L. S. Sullivant, of Homer, in this county, is running one of them, and is pleased with it. The cost—\$200, is reasonable, considering the amount of material and work in them, but it will deter many from purchasing. Farmers who keep two span of horses, or neighbors who could club together in the purchase, in such cases we would commend a trial of them. The ground is left loose as with a spade, and cannot fail of giving good satisfaction. Four horses will spade a width of three feet, or at the rate of five to six acres a day. We think it largely ahead of the Gang Plow, on exhibition and trial.

**GOLD PRODUCT OF THE WORLD.**—It is stated in the "Bankers Magazine," upon what is held to be reliable data, that the production of gold and silver has quadrupled since the discovery of gold in California in 1848. In 1847 the annual production was estimated at \$61,000,000; Russia and Mexico being the principal sources. The product for the current year is estimated at \$270,000,000. A careful scrutiny of the whole subject, as to the sources of this supply. serve to show that North and South America produce about \$97,350,000 in gold, and \$47,650,000 in silver; a total of \$144,000,000. Australia, Russia, and other portions of the world, produce annually \$108,230,000 in gold, and \$19,345,000 in silver; a total of \$127,595,000. The annual average of the gold crop of California is set down at \$60,000,000. The effect of this accumulation of gold is thus stated:

The vast accumulation of gold of the last fourteen years enure largely to the benefit of the United States and Great Britain, by giving an impulse to commerce and to manufactures. Remote nations are indirectly benefitted, because the course of trade is such that gold will flow to those countries where labor is the cheapest, and where the bullion and coin are the most valued, or realize the largest results. This is fully demonstrated in the fact that, notwithstanding the additional accumulation of the precious metals within the past fourteen years, amounting to over one thousand million dollars, there is really but little more on hand in the United States and Western Europe than in 1850–53. In the year 1851, the Bank of France held four hundred and eighty-six millions of francs in silver, and eighty-two millions in gold; whereas, now, after a period of twelve years, it held three hundred and ninety-four millions in both metals. In the year 1852 the Bank of England held \$22,000,000 in bullion and coin, which was, in fact, for the country at large; the joint stock banks, country bankers and private bankers maintaining but small specie reserves. This year the bullion and coin of the Bank of England ranges from fourteen and a half to fifteen and a half millions sterling, and the Scotch and Irish banks £4,270,000, from which we deduce the following comparative table:

	1852.	1863.
Bank of England....	\$110,000,000	\$ 75,000,000
Bank of France.....	113,000,000	80,000,000
Banks in United States..	84,000,000	118,000,000
Total,.....	\$307,000,000	\$213,000,000

**A DIFFICULT QUESTION ANSWERED.**—"Can any one," says Fannie Fern, "tell me why, when Eve was manufactured from one of Adam's ribs, a hired girl was not made at the same time to wait on her?"

We can, easy: Because Adam never came whining to Eve with a ragged stocking to be darned, a collar string to be sewed on, or a glove to mend "right away—quick now." Because he never read the newspaper until the sun got down behind the palm trees, and then stretching himself out, yawned out, "ain't supper most ready, my dear?" Not he! He made the fire and hung the kettle over it himself, we'll venture, and pulled the radishes, peeled the potatoes, and did everything else he ought to. He milked the cows, fed the chickens, and looked after the pigs himself. He never brought home half a dozen friends to dinner, when Eve had'nt any fresh pomegranates, and the mango season was over! He never stayed out till eleven o'clock to a "ward meeting," hurrahing for a out and out candidate, and then scolded because poor Eve was sitting up and crying inside the gate. He never played billiards, rolled ten pins and drove fast horses, nor chooked Eve with cigar smoke. He never loafed around corner groceries, while Eve was rocking little Cain's cradle at home. In short, he didn't think she was especially created for the purpose of waiting on him, and wasn't under the impression that it disgraced a man to lighten a wife's cares a little. That's the reason that Eve did not need a hired girl, and with it was the reason that her fair descendants did.

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Sanford & Mallory's Flax and Hemp  
Machines.

These celebrated machines are on exhibition and in operation in a building adjoining the Chicago Sugar Refinery. For circular telling all about them, price, &c., address

NELSON STILLMAN,  
General Agent, Chicago, Ill.

P. O. Box 5823.

May 1863.

**50** BUSHEL PRIME APPLE SEED—  
\$7 00 per bushel—\$60 00 per 10 bushels.

TWO YEARS OLD APPLE SEEDLINGS  
of superior growth, selected—\$4 00 per 1000.  
EXTRA FINE STOCK OF STANDARD AND  
DWARF PEARS,  
of varieties adapted to the West, at reasonable rates  
by the 100 or 1000.

—ALSO—

A general assortment of Fruit and Ornamental  
Trees, Shrubs, Evergreens, &c.

Send for Catalogues.

ROBERT DOUGLAS,  
Nov. 1863—lt. Waukegan, Ill.

## THE AMERICAN HOG TAMER—

Invented by Reuben Hurd, a farmer of twenty-seven years experience in Illinois.

My Tamer will stop any hog on earth from rooting, from a pig to an old hog by one simple application.

By any one sending three dollars to Reuben Hurd at Morrison, Whiteside county, Ill., he will receive one free of freight; and I will warrant them to give perfect satisfaction, or money refunded.

To those sending: Please name the railroad station you wish them shipped to, as I keep a constant supply on hand, and will be able to fill all orders with promptness and dispatch.

Directions for using will accompany all orders.

REUBEN HURD.

Nov. 1, 1863—6m.

## THE PRACTICAL SHEPHERD,

A COMPLETE TREATISE ON THE

Breeding, Management and Diseases  
of Sheep.

By Hon. HENRY S. RANDALL, LL. D., Author of  
"Sheep Husbandry in the South," "Fine  
Wool Husbandry," &c., &c.

This work has been delayed but is now completed, and ready for delivery to Canvassing Agents and persons ordering it by mail.

## GOOD AGENTS WANTED

To sell the work in every Wool-Growing county in the loyal States, Canadas, etc. For terms, which are liberal, apply to the Publisher.

## THE PRACTICAL SHEPHERD

Comprises 454 large duodecimo pages, is well illustrated, and by far the best and most complete work on Sheep Husbandry published in America, if not in Europe also. Price, \$1 50. Copies sent by mail, post-paid, on receipt of price. Address,

D. D. T. MOORE, Publisher,  
Nov. 1873.—1m Rochester, N. Y.

HOVEY'S  
AGRICULTURAL WAREHOUSE  
AND  
SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

A. H. HOVEY,  
Nov 1862 No. 194, Lake st., Chicago Ill.

EVERGREEN SEEDLINGS.

A very large stock of superior grown Evergreen Seedlings, at less than one-half the Eastern Prices.

PER 1,000.

NORWAY SPRUCE, two years old, three to five inches, \$5,00

NORWAY SPRUCE, three years old, six to nine inches, \$8,00

SCOTCH PINE, two years old, three to five inches, \$7,00

AUSTRIAN PINE, two years old, \$2 per 100.

BALSAM FIR, RED CEDAR, ARBARKITE, &c., &c., of large or small size, at very low rates.

A large stock of CONCORD GRAPES, one of the best varieties for the West.

A large stock of RED DUTCH CURRANTS, the best for market, two to three years old, at half the usual rates.

STANDARD AND DWARF PEARS, of well tested varieties, together with a good assortment of Fruit and Ornamental Trees, &c., &c.

Send for Catalogue. ROBT. DOUGLAS.

WAUKEGAN, ILL. if

TO GRAPE GROWERS.

The subscriber has a large stock of the most vigorous growth layers of the following desirable varieties, which he will sell at very low rates, to wit:

CONCORD. \$55 per 1,000.

A few thousand of bearing age, of large size at \$75 per 1,000.

These will produce a good crop the second year.

HARTFORD PROLIFIC, \$10 per 1,00, or ten for a dollar.

REBECCA, \$10 per 100.

DIANA, \$10 per 100

The above will be well packed, to go any distance.

TERMS—Cash, or approved bank paper o short date.

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DES MOINES IOWA, Jan. 1, 1863.

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KNITTING MACHINES.

Every Farmer to know that his "Women Folks" can earn \$6 to \$20 per week with one of Akin's Celebrated Knitting Machines. It will earn its cost in thirty days. Price complete \$75. Weight 45 pound. Freight from 50 cents to \$1 50. Send for circular and samples, (send stamps.)

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Apr '63 ly 120 Lake street, Chicago, Ill.

BLOOMINGTON NURSERY

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Eighty Acres Fruit and Ornamental Trees

200 NAMED SORTS TULIPS, ALSO HYACINTHS

Crocus, and a general assortment of Bulbs and Flower Roots for Fall and Spring planting.

Nursery stock, Evergreens, Greenhouse and garden plants—all at wholesale and retail at lowest cash rates.

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This nursery has good atock of apple trees of all ages and of choice varieties for the west, low heads and stacky. The genuine "May Cherry," (Kentish or Early Richmond of Downing,) Dwarf and Standard Pears, the Purple Cam. Raspberry, the best of all raspberries for the farm; Lowton Blackberry, Houghton Gooseberry, Grapes, Strawberries, Ornamental Trees and Plants. An immense stock of Silver Leaf Maple, from \$5 to \$15 per 100, 6 to 10 feet high. The green house is well stocked with roses and other budding out plants. This stock is grown to retail and not adopted to the tree peddler, as all trees and plants are large, stacky and thrifty, and intended for the planter only. Terms cash with low prices.

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Champaign.

March 1, 1863.tf

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Attorney for U. S. Military Claims,

West Side of Public Square,

Springfield, Ill.

Entrance office one door north of Banking House of Messrs. N. H. Ridgely & Co.

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August, 1862.tf

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STANDARD

SCALES

OF ALL KINDS.



Also, Warehouse Trucks, Letter Presses, &c.

FAIRBANKS, GREENLEAF & CO.

172 LAKE STREET, CHICAGO,

Sold in Springfield by

E. B. PEASE.

Be careful and buy only the genuine.

june1-ly

# The Illinois Farmer

A MONTHLY JOURNAL OF

## AGRICULTURE AND HORTICULTURE.

PUBLISHED AT

SPRINGFIELD, ILLINOIS,

BY

BAILHACHE &amp; BAKER,

AND IS EDITED BY

M. L. DUNLAP, Tribune's Rural.

TERMS IN ADVANCE.—\$1 a year; two copies 1 50; five copies \$3; ten copies \$6, and one to get up of the club twenty copies \$10.

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All business letters are to be directed to the publishers, Springfield.

### ADVERTISING:

	1 mo.	3 mo.	6 mo.	12 mo.
One page, or two columns.....	8	\$20	\$35	\$53
Half a page or one ".....	5	12	20	36
One fourth page or half column..	3	7	12	18
One eighth or one fourth ".....	2	4	7	10
One square of ten lines.....	1	2	4	7
Card of five lines one year.....				\$5 00

Ten cents a line for less than a square each insertion.

All worthy objects advertised, and those of importance to the Farmer will receive, from time to time, such editorial notices as the Editor may consider them worthy of, without additional charge.

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BAILHACHE & BAKER, Publishers,  
Springfield, Ills.

## THE ILLINOIS STATE JOURNAL

IS CONFIDENTLY OFFERED TO THE PEOPLE OF Illinois as the best and most reliable news, political and commercial paper within their reach. It is published at Springfield, the Capital of the State, and is the medium of all official notices, published by State authority. Particular attention is given to commercial affairs and every number contains copious reviews of the markets in the principal cities.

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Springfield, Illinois.

### APPLE SEEDS.

For sale, fifty bushels of clear seed, at the lowest rates, sent in sacks or barrels in quantities to suit. Address, JOHN BOX,  
Pulaski, Oswego co., N. Y.

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#### ONE THAT PAYS.

THE

## "PRAIRIE FARMER,"

Has now been published in Chicago, Ill., for twenty-two years, without intermission. It is devoted to the Producer's interests, treating of

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### A NEW VOLUME

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For sale by news dealers generally.

For samples or other information, concerning the paper, address

EMERY & CO., Chicago, Ill.



# THE ILLINOIS FARMER.

VOL. VIII.

SPRINGFIELD, ILL., DEC., 1863.

NO. 12.

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FARM, THE ORCHARD AND THE GARDEN,


PUBLISHED BY

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The design and size of Floral Hall were both exceedingly defective, and must of necessity continue so, as long as the Society is a traveling show. Locate the State Fair and permanent improvements will be made, shingles will take the place of boards for the roofs, and glass show cases for the rough shelving and imperfect railing for the exhibition and protection of fruits and works of art. The high staging for flowers will give place to floral works after the manner of the exhibition of the State Horticultural Society at Rockford. Floral Hall can and should be the great centre of attraction at the State Fair. As it was, no point was so

solidly packed as this with moving humanity. To get through the crowd was almost impossible, showing the deep interest now taken by our people in this humanizing department of rural pursuits.

### ARRANGING OF FRUITS.

No attempt was made in the way of arranging of the competing lots of fruit. Each owner arranging his entire collection together, though generally in a very tasty manner, considering the absence of plates for the purpose. We should like to see all of the lots competing for any particular prize, in one groupe, with the owner's name and place of growth printed in good sized letters. This brings to mind what we have often wished to see on the ground a small job press with its fonts of type to do this work as needed. This should be provided by the Society and be under the control of a superintendent for the use of the several departments, and will be found one of the most useful and labor saving implements on the ground. To fit up this hall as it ought to be will require two to three thousand dollars. We can challenge the world in fruits. Then why not make them a leading feature in the State Fair.

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The State Horticultural show will be a great show of flowers before the main season of fruits, and can only show the Summer fruits in that connection, while its Winter meeting is for Winter fruits and the discussion of their respective merits and culture.

Corn is the high school of the art, and the other is the great exhibition room or the results of the other, each necessary to its colaborer. There can be no antagonism in them, and each should have our fostering care.

The premium list of fruits and flowers was not well calculated to draw out a large show of either, though Jack Frost settled the matter in regard to the latter. We respectfully call the attention of the Executive Board of the State Agricultural Society to the growing importance of this department, that they may provide for the more perfect exhibition and security of our fruits. At the late Fair light fingers filched nearly all of the grape, in fact every thing of the kind that came within reach was taken, and out of seventy pots of choice flowers that we had on exhibition, more than three-fourths of them mysteriously disappeared. We commend the good taste of those who took them, but have little respect for the manner, as it smacks too much of the free and easy to please us.

#### December.

We have now reached the last month of the year teeming with stirring incident in the history of the nation, and a year long to be remembered as a marked one in the climatology of the Northwest. The year 1862 was remarkable for good crops and immense growth of trees, shrubs and plants. The Winter of 1862 and 1863 was mild and favor

able for the succulent growth of the Summer. The Spring set in wet, not allowing of corn planting until the beginning of May, when the storms cleared up, leaving a cold, clear, dry atmosphere, with a sodden soil to be turned into hard clods by the plow. Into this soil the Spring crops were planted. On the 28th of May we had a kindly rain of moderate extent, yet doing something towards softening the clods and bringing forward the crops, but with the exception of isolated showers, that was the end of the Summer rains.

In July we had a light frost, doing little damage aside from retarding the growth of corn. On the 26th of August we had a sharp frost in many places, and doing serious damage to the growing crops in the low lands. This was repeated on a larger scale on the 30th of the same month, doing an immense amount of damage to a wide area of country, and stretching South of the Ohio. Another frost in the middle of September finished up all green vegetation that could be reached by a heavy frost that had escaped the previous visitations. In this the high and the low land came in for a share alike. Amid the desolation of the drouth there were bright spots, such as parts of Adams and Green counties and in small locations where some Summer shower dashed down its needed favors.

When we consider the area planted, the favorable weather for the small grains, the thorough cultivation of the rowed crops, and the abundant supply of improved farm implements, we have to acknowledge in the small yield a general and deep disappointment of the season's hopes. In Spring wheats, oats, barley and flax, we have no reason for

particular complaint, but the great falling off of the two leading staples, corn and hay, show their importance to the Prairie State. These two crops are the great centers, around which the minor products of the farm form only the setting of the coronal.

If August and September astonished the farmer with frost, October has crowned his wonder with snow. On the 22d a snow storm came up from the Southwest, being at St. Louis in the morning, reaching this place in the p. m., and Chicago during the night, with six inches of snow at St. Louis, four here and two at Chicago. We were at the time at the old homestead at Lydon, sixteen miles west of Chicago. But not satisfied with this effort for October, it must be closed out under the regal garb of Winter, and to this end the snow commenced falling at 10 A. M., on the 30th, after a rainy night, and continued throughout the day and part of the night, melting rapidly, yet this morning, the 22d November, it lay four inches deep, with the windows sheeted within. The sun is out clear, with nearly all the surrounding of mid Winter. We have had as much snow as sometimes falls at this point during the whole Winter, and we lack only the frozen ground to finish up the full picture of Winter.

With all the draw backs we have to record, some favorable mentions, and among them are the abundant fruit crop in the north half of the State. Northern Illinois has never had such a crop of fruit as the past season, and that too after a similar season to that of 1834, which was followed in 1855 with the most widespread destruction of trees ever known in the history of the West. The growth and appearance of the

trees last Autumn was so similar to that of 1854 that we entered the Winter with fear and trembling. Apples, pears and peaches were loaded, while the small fruits gave a full return. On the other hand the South part of the State suffered with a cold time in November and again in March, resulting in a bad failure of the peach crop and with light returns of other fruits.

The drouth and frost combined ruined the Sorghum and the hundreds of thousands of barrels of sirup that would have been made, are reduced to a few thousand. Cotton and tobacco have also come in for a share of ill luck also. During December it is our intention to visit the South part of the State to learn more in regard to these new staples.

---

#### Two Horse Cultivators.

The introduction of two horse cultivators to all rowed crops, has resulted in an unusual yield of produce, with a lessening of the labor of over half the usual amount. They are already making a revolution in field labor that is largely felt in the less number of hands required to the number of teams.

The cost of the corn and potato crops have been reduced nearly one half, and when they will be applied to the culture of cotton by an intelligent class of laborers, they will not only increase the yield but reduce the cost of culture to a mere nominal sum, as compared to the old mode, and but for the picking would soon reduce its cost to a few cents a pound. With two or three years of peace, cotton will be down to the old price, before the rebellion disturbed the equilibrium of labor.

We propose to show in what respect

we depend on the new implement to work this change.

We have seen no two horse cultivator but that is more or less valuable and much in advance of the old cultivators and shovel plows, but in the large number now before the public there is no inconsiderable difference. During the past season we had three different patterns on trial and have made our selection for the next season. We do not think that inventive genius has as yet been fully exhausted in this direction. It appears that the principal aim has been to adapt these cultivators to the culture of corn, and there most of the inventors have stopped, but there is a wide field beyond, into which some of them have boldly leaped. With our iron field roller we have dispensed with the use of one out of two harrows formerly used, and now with the two horse cultivator we shall need that one but little if any at all. Of this we shall not fully decide until we finish up the next spring's seeding.

IN THE NURSERY.

All young trees need a slight banking up with the plow preparatory to winter. This we have just completed with our two horse cultivator, which has made a nice ridge of fine earth against the line of trees, grape and currant cuttings. The asparagus bed, twenty by four hundred feet, has been thoroughly *forked over* with it.

SWEET POTATO RIDGES.

The making of sweet potato ridges have always involved a large amount of muscle. Now we can throw these up at the rate of three acres a day with, the use of two horses and one man and at the same time the ridges are made of thoroughly pulverised soil, superior to anything that we have seen

before. A very little hand labor with a steel rake makes a most perfect ridge of the largest dimensions. This will enable every farmer to grow an abundance of this fine vegetable at little cost of labor.

PLANTING AND CULTURE OF POTATOES.

All of our prairie soil is better for autumn plowing, and we will suppose that the potato field has been plowed. At the time of planting, with our cultivator arranged for ridging up, we go over the field, making a slight ridge in the centre and a corresponding depression or dead furrow at the outside of the cultivator. Along these miniature dead furrows, which, by the way, have been loosened up, we drop the seed potatoes at the rate of two acres a day with one hand. Thus one team with two men to drop and one to drive or the latter hand can be a boy of a dozen years, and we have four acres of potatoes planted, with the surface thoroughly cultivated at the same time. After the plants are up cultivate them once a week, giving them a slight ridging each time until in bloom. They will then be nicely ridged up, with no weeds in the hills and that without the use of the hoe.

Let us figure up the cost of four acres :

Plowing two days.....	\$4 00
Cultivator one day, planting.....	2 00
Planting two days, by hand.....	2 00
Cultivating four times, two days.....	4 00
Preparing seed by cutting, 3 days, one hand.	3 00
32 bushels seed, 25 cts.....	8 00
Cleaning the middle of the rows with double shovel plow to keep down the late weeds, two days, man and horse.....	3 00
Two days, man cutting weeds out of the rows	2 00
Use of land.....	12 00
Total.....	\$40 00

Being at the rate of ten dollars an acre. If we assume a hundred bushels to the acre a fair average crop, we



have the total cost ten cents a bushel in the hill. To this add five cents a bushel for digging and picking up, and five more for hauling to market, we have a pretty cheap crop, the most of which is due to the use of the new cultivator.

#### THE NEW CULTIVATOR IN THE CORN FIELD.

We will now try the corn field on autumn plowed land. With a planter attached to the roller, the planting and rolling is done at the rate of fifteen acres a day. We give this fifteen acres four cultivatings with eight days work, making the cost as follows:

8	days' plowing in fall.
1	" planting and rolling.
8	" cultivating.
<hr/>	
17	" total.

Or a little over a day to the acre to cultivate corn in the most thorough manner. How long can the East compete with the prairies in the growing of corn?

When labor was very much depressed, before the construction of railroads, and when the rent of land was merely nominal, the growing of corn to be fed in the field to stock at five dollars the acre was but a poor business. If farmers had then had the new cultivator, they would have made corn growing profitable, allowing three dollars an acre for rent of land, which at that time would have been considered a good business. Forty acres to the hand and team was then considered a good season's work, now 60 to 70 are but an ordinary one; so much for the new cultivator.

We now come to the spring seeding of the small grains. As before we must have the land plowed in the autumn. With the new cultivator we harrow in eight acres a day, and finish by rolling

fifteen a day, thus putting in at an average rate with the harrow, and at the same time have the surface deeply cultivated. Shall we write the history of the lost harrow? With a hand sowing machine costing ten dollars, a man can sow thirty acres in a day, or three times as much as by hand, and at the same time do the work much better. Our Egyptian friends know nothing of fall plowing, and as a matter of course must wait in the spring for the land to dry off before plowing. There the spring answers to our winter, they getting rain when we have snow at the north. If they would plow their clay lands in autumn, and put in their crops with the two horse cultivator, they need not wait for the close of the rainy season, which with them is the growing season, and the very time the crop should be growing, the whole aspect of farming in Egypt would be changed and good crops would be the rule, instead as now, the exception.

The cultivator to which we allude is known as the Stafford Patent, made at Decatur, by Messrs. Barbor & Hawley, and which took the first premium at the trial of implements under the direction of the State Agricultural Society. As a corn cultivator it has four shovels, to which two others are added when used for other purposes. It is the most durable of all the cultivators in use, and the least liable to get out of order.

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SANITARY STORES FROM THE WEST FOR LIBBY PRISON.—The Chicago Post says that the Northwestern Sanitary Commission will send a shipment of sanitary stores to the Northwestern men in Libby prison, in season for the next flag of truce to Fortress Monroe. It made one shipment some ten days ago, which is probably now affording comfort to our captive countrymen in the bastille of Richmond.

Crops of 1863.

From the Report of the Commissioner of Agriculture we make up the following estimated condition of the crops of this State for the current year as compared with 1862, in bushels :

	1863.	1862.
Wheat.....	31,408,163	52,212,500
Rye.....	983,190	981,322
Barly.....	1,205,042	1,175,651
Oats.....	19,681,420	17,892,200
Corn....	83,013,681	138,356,135
Buckwheat.....	314,602	431,336
Potatoes.....	4,611,083	6,444,404
Total.....	141,017,081	197,494,568
Decrease.....	56,477,487	

The oat crop shows a gain of 1,789,-220 bushels, while all the others except barley fall short to a very alarming extent. The corn crop for the loyal States is set down

1862.....	586,704,474
1863.....	449,163,894
Deficit.....	137,540,580
Exported in 1862.....	11,680,342

Should we export the same amount this year we should come short, 126,-860,338 bushels, or if we have that amount of old corn in the country we can feed and otherwise use and export the same amount that we did in the year 1862. It is well known that in all times of high price or scarcity we use less, and in this case we shall show a marked one of economy. In nearly every part of the State the hog crop is being sent to market in a half fattened condition, and the same may be said of cattle. Last year an immense number of head of cattle were brought into the central part of the State to be fed, now we hear of none at all. We find the value of the frosted corn for feeding less than supposed. We made the attempt to fatten our own hogs on it, but have been compelled to resort to old corn, and only use the new in shock

to winter the neat stock. Fortunately, we had a good stock of old corn, sufficient for our own use the next two years.

Those having stock to feed are paying seventy-five to eighty cents a bushel for it for this purpose, while the best of the new crop is dull sale at fifty cents a bushel.

These facts go to show that the corn crop for domestic use is of vast importance and subject to great fluctuations in price. We may well ask if this is to continue to be so. Most certainly until our farmers adopt a better mode of housing it. We grow little corn for sale, but as we have good well roofed cribs, and while the price ruled low it was stored, and the result is that we have a surplus from the three past seasons, that is of '60, '61, and '62. The former we are now feeding to our hogs, and find it in most excellent condition. If every farmer had good cribs they would not be compelled to sell what they have left over, while without them they have no alternative but to sell or have it rot on hand. With our small surplus of fifteen hundred bushels now worth seventy-five cents in the crib, we have a profit of several hundred dollars over the cost of our cribs, while the cribs will be good for many years to come. So much for having corn.

We had supposed that the year 1858 would have given the whole farming community a lesson in housing or rather the want of housing corn that would not soon be forgotten, but five years and the lesson is repeated in a more startling form, and one in which it is hoped some heed will be taken.

Until the next season is sufficiently advanced to determined the crop all farm products must rule high. Another

er call of men for the army will draw from the laboring ranks the ability to put in large crops next spring, and we cannot look forward to any rapid reduction in the price of farm staples.

The improvements in farm tools, is equal to several thousand laborers, while new modes of culture will make a further reduction in that direction. We can now do as much on the farm with four hands as we could four years since with six, and in some particular departments the difference is much greater, but this is a safe calculation for the average of farm work.

#### The Sewing Machine.

No labor saving machine has been sent into the household of the same value with the sewing machine. It not only does the work faster than can be done by hand, but in a very superior manner. At first they could only sew plain seams, but now, scarcely any needlework is beyond their reach. For a long time the Wheeler & Wilson sewing machine took the lead as a machine for all work, than supposed possible, and other makers of machines were compelled to sell at a low rate, or not to sell at all. Many of these cheap machines are valuable and save an immense amount of labor, and for small families are yet desirable. But the subject was not exhausted, further improvement was called for both use and ornament—a machine was now wanted that would do all the plain sewing from a muslin dress to that of the heavy wadded quilt, but it must not stop here, it must turn the nicest hem, tuck the seams where needed, embroider and sew on braid, either in ornamental festoons or to protect the edges of the garment. Nothing short of these de-

mands would suffice to render a machine of the first class.

The Grover & Baker Sewing Machine Company, which had stood for years next in public estimation to that of the Wheeler & Wilson essayed the task, demanded. We have but to refer to the numerous premiums that they took at the several State and county fairs to show how they have succeeded, and instead of standing second they now boldly claim the first position. This created no little excitement and the public could scarcely believe the fact that the Wheeler & Wilson should come down from its towering height and give place to any other. It was so well made, so durable and so useful, could genius go any further? The committee said yes, the Grover & Baker was equal in all respects, and superior in several important particulars. But powerful parties do not yield the position which they hold without a struggle, and the case of the sewing machines has been no exception to this rule. The catechism put forth by the Chicago agent of the W. & W. machine was a most extraordinary document, and showed most clearly that the sceptre had departed or was about to depart from his hands, that the recent improvements in the Grover & Baker machine had added so much to its intrinsic merits that it had become no mean competitor. The evident intention of this most singular document was to exclude from the committee on awards every person who was familiar with the use of a sewing machine, thus giving them the opportunity to work on the ignorance of the committee, and like the throw of the dice, give them an equal chance for the award. The public should thank the officers of the

several State Fairs for scouting these propositions, and appointing on the committee persons of skill and experience, and against whose integrity no suspicion could be successfully brought to bear.

At the State Fair at Decatur, the subject was thoroughly discussed and no other conclusion could be arrived at, than that the new and valuable improvements of the Grover & Baker were at the bottom of this new mode of catechising the committee, 'as with an intelligent committee these facts would stand out too prominently.

The pretence that the W. & W. machine would not enter the lists without their questions were put to the committee was evidently to cover up their defeat, for no sane man could for a moment suppose that the officers of the State Fair would permit of so humiliating an example, nor would any intelligent committee allow themselves to be thus insulted. The only safe inference that can be drawn from the premises, is that charged in the closing remarks of the correspondence of the *Chicago Tribune* which we here insert :

"The sewing machines are the great center of attraction, and hold a crowd of interested ladies throughout the day. There are three exhibitors, but as each has several machines, they manage to occupy nearly the whole of one side of the long hall. First, as we enter, stands the Grover & Baker. They exhibit both the Grover & Baker lock-stitch, and their shuttle-stitch, like that of the Wheeler & Wilson. These machines made for family use cost \$45 each.

We note several important improvements since the last State fair, among them their adaptation to embroider, to sew on braid, and to tuck and hem in a superior manner. The main wheel is so arranged that it can be instantly adjusted to a long or short belt, and made to run light on gossamer fabrics and tightened up for leather work. The specimens executed by these cheap and durable machines, we have never seen equalled at this or

any State Fair. We are with the committee in their examinations, which are of the most searching nature, as they are determined to give an award that no one can cavil at. When we see the work of these Grover & Baker's, we are not surprised that old and popular machines hesitate to enter the arena with them, unless on some scale of points that shall lose sight of these valuable late improvements."

Some of our lady friends say that one feature in the G. & B. machine is its simplicity, and the ease of learning to operate it. This is an important point, for those in the country too distant from the office to take lessons. This machine is so simple, so strong, so durable and so easy to learn to operate, that it appears the agent of the W. & W. did not dare come in open competition, hence the pretext to make an excuse to stand on his former laurels all of which we must concede were nobly won, though unfortunately for him now outstripped in new improvements by his competitors the public have no further interest in these petty wars further than to avail themselves of the best and cheapest.

We are not the owner of either of the machines named, having one of the Taggart & Foss machines which makes a Grover & Baker stitch. The first machine that we purchased was a Quaker City, a very good cheap machine, but not well adapted to light fabrics; to some extent the same fault follows the Taggart & Foss machine, but on the whole it does very good work, though not to be compared with the new G. & B. machines.

We have made these rather extended remarks more as an act of justice to the officers of the Iowa, Michigan & Illinois State Fairs and to benefit our readers, who intend to purchase machines, to aid those rival parties. We are glad to see a sharp competition be-

tween the sewing machine men, as a benefit must result to the public in cheapening this implement that must soon be found in the parlor of every well regulated household.

We would call the attention of our readers to the card of the Grover & Baker.

## Poetry.

From the Boston Commonwealth.

### The Fall of the Leaf.

BY HENRY D. THOREAU.

The evening of the year draws on,  
The fields a later aspect wear;  
Since Summer's garishness is gone  
Some grains of night tincture the noontide air.

Behold the shadows of the trees  
Now circle wider about the stem,  
Like sentries which by slow degrees  
Perform their rounds, gently protecting them.

And as the year doth decline,  
The sun affords a scantier light;  
Behind each needle of the pine  
There lurks a small auxiliar to the night.

I hear the cricket's slumbrous lay  
Around, beneath me and on high,  
It rocks the night, it lulls the day,  
And everywhere is nature's lullaby.

But most he chirrups beneath the sod,  
Where he hath made his winter bed,  
His creak grown fainter but more broad,  
A film of Autumn o'er the Summer spread.

Small birds in fleets migrating by,  
Now beat across some meadow's bay,  
And as they tack and veer on high,  
With faint and hurried click beguile the way.

Far in the woods these golden days  
Some leaf obeys its Maker's call;  
And through their hollow aisles it plays  
With delicate touch the prelude of the fall.

Gently withdrawing from its stem,  
It lightly lays itself along  
Where the same hand hath pillowed them,  
Resigned to sleep on the old year's throng.

The lowliest birch is brown and sear,  
The farthest pool is strewn with leaves,  
Which float upon their watery bier,  
Where is no eye that sees, no heart that grieves

## Correspondence.

### Our Hard Times.

*To the Editor of the Illinois Farmer :*

As I presume, from all accounts you are likely to have a taste of hard times in your part of the State, I thought it might help you a little if I should inform you that we not only are going to have hard times, but have got them already. In the first place, we had no fruit to speak of but strawberries; these were partially a failure, net prices were good—we fattened a little. Then we had an awful wet June, so that we who were raising cotton, had to hold-up the plant with one hand while we hoed it with the other. Then it came on as dry as a powder horn, and cool enough for spring, the cotton wouldn't grow till the middle of July, when it did the best it could. August 30 came the untimely frost. It was a scorcher, and yet, in three weeks came another frost, it was a burner, and used up everything. It was harder with us than with you. Of course, corn, potatoes and "such small deer," suffered in a similar manner. Few of us cut hay, corn is 75 cts. per bushel, the fodder was killed, and almost every one is wishing himself kicked, not into the middle of next week, but into the middle of next spring. The coming winter is likely to be severely long. Individually, we have corn, potatoes and hay. I sent to Chicago for apples—several bought of that good Christian, G. H. B. of South Pass, and we shall live through, and come out with the determination to get out manure, to plow deep, and plant early.

I saw a gentleman a few days ago living near Villa Ridge, Alexander county, who came from Cincinnati last spring, and planted 140 acres of cotton. The frost hurt him so badly that he says he will not have more than two hundred pounds in the seed, or fifty pounds clear cotton to the acre, which will not pay the expenses of his investments. But he is by no means discouraged, he has bought a large quantity of suitable land in the north part of this county, Union, and next spring he will try to put out at least 400 acres of cotton. He says he must get his money back. Good for him. His name is A. B. Fenton.

DOUGLAS, ILL.

N. C. M.

—During December we intend to make you a visit and investigate the hard time you mention.

Ed.

PROVERB.—Give instruction to a wise man and he will be yet wiser; teach a just man, and he will increase in learning.



## Agriculture.

### Annual Report of the Executive Board of the Macoupin County Agricultural and Mechanical Society, delivered Nov. 5th, 1863.

**GENTLEMEN OF THE SOCIETY:** One year ago you met in this room and elected your present board of officers, and entrusted to their guardianship the interests of the Society for the year past. If, in the course of the year, you have found cause to regret the appointment, the ballot-box is now presented to you and an opportunity given to correct the error. If, on the other hand, the administration of the present board meets your approval, we shall look back upon our years work with satisfaction, that our time and our means have not been spent in vain.

The year past has been a sad period in the history of our country. War, with all its attendant horrors, has been upon us, and although our own State has not been the scene of strife and battle, yet we have felt the depressing influences of the struggle. Agriculture has suffered much. Many a hand that has heretofore been engaged only in the peaceful pursuits of agriculture, now grasp the sword and the musket in the defence of our country.

The various means and transportation which have heretofore stood ready to convey our produce to market, are now over-taxed with other business and insufficient for the purpose.

The privileges of our great rivers and river markets, have been snatched from us, and the products of our labor have to be sent almost half across the continent by railroad to find a market.

These influences have operated injuriously to the agricultural interests of the country, and any thing that has a depressing influence on agriculture will necessarily operate injuriously to agricultural societies and agricultural fairs.

The executive board indulged the hope in the beginning of the year that they would be able at this election, to report that the Society was out of debt. This desirable result would have been attained only for the large expense necessarily incurred in rebuilding the improvements which were destroyed by fire during the year—an expense wholly unforeseen and unprovided for.

The total receipts into the treasury for the current year have been \$1409,30.

Am't on hand at beginning of year,.....	\$ 93,70
Making altogether,.....	1503,00
Total amount paid out,.....	1400,00
Leaving balance in our favor,.....	102,13

By these figures, it will be seen that, although the Society has met with reverses, it yet sustains itself; and with judicious management another year, and a successful fair, all outstanding debts may be paid.

The executive board would respectfully urge upon the members, the necessity of giving a hearty support to the Society. Let it not be said that old Macoupin, one of the largest and richest counties in the State in agricultural pursuits, is lagging behind her sister counties in her support of agricultural institutions.

Our fair for the present year, though quite creditable, both in respect to the attendance and the articles on exhibition, was not what it should have been, considering our population and agricultural resources. If our entire farming population were made to feel their interest in the matter, and induced to bring out all their worthy stock and other articles to the fair, our Society would then take its proper position among other societies. To secure these results, it is of the most vital importance that good men be chosen to administer the affairs of this Society—men who will attend the meetings of the board and work with it, regardless of personal convenience.

And after all this is done, and they have devoted their time and what wisdom they may possess to forward the interests of the Society, they will yet fail unless they have the support of the people. Every man who has articles worthy of exhibition, or who has the ability to attend the fairs himself, is accountable to that extent for the success of the Society.

Then let us enter upon our new year with the determination that each one of us, and every one of us, will do our whole duty in the matter. If we do this, and keep that determination, another year will see the Macoupin County Agricultural Society placed in its proper position at the head of like institutions in this part of the State.

W. C. WATERS, Pres't.

JOHN TUNNELL, Sec'y.

—The above shows that the Society has been well managed, and in a most prosperous condition, and the members have done well in re-electing the old board, as follows:

President—W. C. Waters, Carlinville.

Vice President—J. C. Duggar, Carlinville.

Secretary—John Tunnell, Plainview.

Treasurer—T. L. Loomis, Carlinville.

Directors—D. McDaniel, D. Gore, Carlinville; M. Olmsted, Shipman; L. Johnson, Buford; H. J. Loomis, Chesterfield.

We spent two days at the fair of the Society, and can bear testimony to the efficiency of its management.—ED.

#### REPORT OF THE COMMISSIONER OF AGRICULTURE.

—This report for 1862, of 632 pages is at hand. It presents an improved appearance in the getting up of the work over its predecessors of the Patent Office. We have not had time to give it a thorough reading, but a glance through its well printed pages impresses us very favorably, and we think it will prove a decided acquisition to the library. Its statistical tables appear to have been constructed with great care, and at this time particularly valuable. They show that the Northern States are, after all, the great pillars of the Union, and to the energy and mechanical ingenuity of the free States is due, to a great extent, the prosperity of the country.

## Horticulture.

### Winter Meeting of Illinois Horticultural Society,

ALTON, Nov. 15, 1863.

*To the Horticulturists of the Mississippi Valley :*

The Illinois State Horticultural Society will hold its eighth annual Winter Meeting, at Mercantile Hall in the city of Alton, on Tuesday, Wednesday, Thursday and Friday, December 15th, 16th, 17th and 18th, 1863.

The various State and local Horticultural Societies of the country, are cordially invited to send delegates ; and all persons interested in Horticulture are urgently requested to attend. Specimens of fruits, flowers, plants, vegetables, wines, seeds and other products are solicited.

The Ohio & Mississippi Railroad Company will grant return passes to "members holding a statement from an agent that they have paid full fare from such a station to St. Louis, and at the same time presenting with it, at the Superintendent's office in St. Louis, a certificate of membership." The Chicago & Alton Railroad Company will pass returning members to the 19th of December, who have paid full fare, on the certificate of the Corresponding Secretary. The Terre Haute & Alton Railroad Company "do not commute fares in favor of meetings of any societies." The Illinois Central Railroad Company reply that it is contrary to their regulations to make any concession in the rate of fare for passengers to any but the State and National Fairs.

Persons arriving before ten o'clock on Tuesday, are requested to report at the Corresponding Secretary's Office, over the Alton Bank: after that time at the Hall of meeting: where a Committee of Reception, appointed by the Alton Horticultural Society, will assign them to quarters provided by the hospitality of citizens.

#### PAPERS TO BE READ BEFORE THE SOCIETY.

President's Annual Address.

Treasurer's Report.

Secretary's Report.

Essay on the Apple, by F. K. Phoenix, Bloomington.

Essay on the Pear, by Robert Douglass, Waukegan.

Experience of Pear Blight, by B. F. Long, Alton.

Essay on the Peach, Nectarine and Apricot, by E. S. Hull, Alton.

Essay on the Grape, by John A. Warder, Cincinnati.

Essay on American Wines, by Geo. Husmann, Hermann.

Essay on Small Fruits, by N. J. Colman, St. Louis.

Essay on Vegetable Gardening, by H. Schroeder, Bloomington.

Essay on Flower Gardening, by Chas. Kennicott, Centralia.

Essay on Cultivation of Native Forest Trees, by O. B. Galusha, Lisbon.

Essay on Green House Culture, by Edgar Sanders, Chicago.

Essay on Nut-bearing Trees, by Wm. Muir, Fox Creek, Mo.

Eulogy of the late John A. Kennicott, by Arthur Bryant, Sr., Princeton.

Biography of Dr. Kennicott, by C. D. Bragdon, Chicago.

In addition to the essays by the gentlemen above named—who have all consented to serve—others are expected from persons who have not yet made known their intention to furnish contributions.

In the discussions of Fruits, &c., the following order will be followed, so far as practicable, and is recommended to the consideration of Essayists:

1. Varieties First—for profit. Second—taste.
2. Propagation.
3. Selection and Preparation of Ground.
4. Planting.
5. Cultivation.
6. Pruning.
7. Diseases.
8. Gathering and Marketing.

G. W. MINIER, President.

W. C. FLAGG, Corresponding Secretary.

—We trust that every fruit grower in the North-West will be in attendance at the above meeting. They should bring fruits, seeds, cuttings of valuable fruits, scions, etc.

We are somewhat surprised at the reply of the Illinois Central Railroad Company in regard to return passes on this occasion. There is no road so deeply interested in the promotion of fruit culture as is this road, and it would show its appreciation of the efforts making in this behalf to have been at least as liberal as that of its competitor for the fruit trade, the C. & A. R. R. It is true that the attendance at these meetings have not been generally large in numbers. Yet it has exerted a decided influence on the progress of fruit culture throughout the West. We trust that the I. C. R. R. will yet see the importance of fostering the enterprise, by sending an officer to attend the meeting with authority to grant return passes to all persons who wish to return over their road.

### The Experimental Garden.

A visit to the experimental Garden in Four-and-a-half street, last week, interested us much, especially as Mr. William Sanders, under whose judicious and scientific care it has been placed, was kind enough to accompany us in our explorations and answer any questions we proposed to him. When it is remembered that but a short while ago the site of this fine garden was only a worthless swamp—that, in point of fact, the garden is all "made ground," having been filled up with rubbish, and only topped with earth—the institution cannot fail to be regarded as a great success. The garden is now in better order than it has ever been, for Mr. Sanders' energetic and conscientious management is beginning to tell upon it. Many needless walks and merely ornamental beds have been dispensed with, and the room thus wasted has been turned to good account. Nevertheless, the gar-

den is still rather ornamental than useful, at least to the degree which Mr. Commissioner Newton and Mr. Sanders desire it to be. It contains, however, an immense number of fine grape vines of countless varieties; large beds of strawberries, raised from seed of the very best kind, and a variety of other fruits, as well as experimental beds of cereals, potatoes, &c., with a remarkably healthy collection of greenhouse and other plants and shrubs. But what really is needed, and for which we trust Congress will provide at an early day, is an experimental farm, on which the value of all new importations of seeds, roots, fruits, &c, can be properly tested for a year or two before their distribution. The Agricultural Bureau can never have fair play until it has such a field for the conducting of its experiments. The site of such a farm ought, of course, to be within very convenient reach of the city, that persons from the country visiting Washington may be able to get to it and obtain the information the director would be able to impart. The Commissioner of Agriculture is constantly receiving cereals and other valuable growths from abroad, which, if they could be thoroughly tested under his own observation, might be made of incalculable value to the country. But the present garden is far too limited for such operations, nor is it favorably located. No one can be more solicitous than Mr. Sanders to benefit as well as to gratify visitors and the country, but the scale is too small for the gratification of this wish. Let us have an experimental farm, and the whole country will be immeasurably and permanently the gainer.—*Sunday Chron. D. C.*

—Intelligent agriculturists have for a long time seen the growing want of an experimental farm. Model farms have come and gone without leaving any good behind them, while the want of an experimental farm is more and more apparent.

In the absence of this farm, or before one can be provided, we suggest that the Commissioner place these plants and seeds in the hands of parties who will give them proper attention, and report the results of the trial. In this way many new things might have a trial and their value ascertained without delay. By sending them to different States their hardiness and adaptation would be the sooner discovered, and the plant thrown aside as worthless, or at once assume a place among other valuable products.

The tea plants could be distributed to some extent among the greenhouses of the North and West, where they can have winter protection under glass. It is probable that some of the seedling plants may be found moderately hardy with us, where planted in well sheltered borders, at least the trial should be made. We have the perennial cotton of Peru making good growth under glass, while several of the plants as yet hold their foliage well in the cellar, though all exposed to the frost of Aug. 30th are dead.

There is no greater luxury than fresh vegetables.

## Small Fruits.

Who will dare to say that the small fruits are not the great fruits after all? The time is not far distant when they will occupy an important place in every garden.—*Ill. Farmer.*

"The time," friend Dunlap, will not be in our day. Right in sight from our window, are farms, the first settled, with hardly sufficient of the common currant for a mess. It is only here and there that a farmer is growing small fruits sufficient for his own family. Nor do they seem to manifest any interest in the matter. Now and then a woman will attempt the thing, after years of pleading in vain. And then the chances are that the colts, cows, or hogs will destroy the plants or bushes. Farmers will raise pork, make a hog-yard of the highway, gorge on fat, eat tobacco, drink whisky, and become half animal, with incipient bristles on the back, and go around squealing about not raising fruit in this country. Look at their orchards and then at their small fruits. Grape vines uncultivated, unpruned, twenty years or more in the ground, and bear not. *Can't raise grapes!* Some of these croakers have a few raspberry bushes, but fork, hoe, or knife they have not known, and like a snarl of hazel brush, they live in the corner where they have been kicked out of the way. *"Can't raise raspberries as we did East!"* Look at their currant bushes. Hardy, faithful, and submitting to the roughest fare and usage, they cost the day with grass and neglect, and furnish a few messes of small, sour, inferior fruit. Ah! one of the croakers has a pear—a dwarf. It was *stuck* into the ground. It has never been cultivated, fed, or pruned. *Can't raise pears!* And so on to the end of the chapter. People can raise hogs, raise hops, raise the devil, even tobacco, but cannot raise plenty of small fruits. Some have no time [false] ain't able—[ditto] never had any luck—[true] can't raise fruits here successfully—[not ditto.] And so these people, instead of putting luxury, health, and happiness within reach of their children at home, allow them to beg or steal the fruit from others, or go without. But do these people not love small fruits? Put a dish of strawberries and cream, before them heaped up, or a strawberry short cake before them, with a "few more" berries at hand, encrusted with sugar and cream; or black caps; or purple canes; or Lawtons; or grapes; or plums or pears, etc., and you will be astonished to learn what a cavity there is under their palates for such delicacies, long unoccupied.

But there are good souls scattered around, Dunlap, for company. Blessed be all such, for they raise small fruits, and their children rise up and call them blessed.—*Wis. Chief.*

## Fruit—Apples.

It requires no little tact and general information to handle fruit well. Although our store in this commodity is quite small, yet we know one or two things it would be well to remember. Pears should never be suffered to remain on the trees till very ripe. Better pick them a week or ten days before quite ripe, and let them ripen in the house. Late autumn and winter varieties must be examined

once a week, as to ripeness, because the season of their ripeness varies with the general season, or the place where kept. Apples, for winter supply, should be suffered to remain on the trees as long as possible and not be injured by the frost; they should then be placed in an upper chamber for ten or twenty days, to undergo the sweating process, then assorted, and all the best packed in barrels and headed up. Russets particularly should be headed up, or else they will wilt. With most other varieties of apples the heading up may be a matter of convenience. This year much of our fruit being wormy, it should be examined as often as once in two weeks, and assorted; one rotten apple will effect all near it, and in a very little while the flavor of all in the barrel.—*Rockford Register.*

### Marking Trees.

Every one has felt the need of some effective plan for marking fruit trees in the orchard; all sorts of labels have been tried, and most persons depend for strict accuracy on having a manuscript list made of the trees as they are numerically arranged on the ground. This is very well, but as one has to have the list always about, or sometimes likes to graft several kinds on one tree, the plan is so far objectionable.

Now, it is a well known fact, that the scratch of a pin on the bark, leaves a scar that endures almost with the life of the tree. We were shown a beech tree, recently, in Delaware county, by a middle aged man, with the initials of his father still plainly traceable, which were scratched on the bark when his father was a boy. The same can be done with fruit trees, as we believe we saw suggested some years ago in an agricultural journal, but which, like a good many good ideas that yearly float over the great sea of the agricultural press, has nearly been forgotten. We saw some trees a few days ago that had been marked in this way, and it reminded us that the idea was worth resuscitating.

The letters of the name are scratched on the under side of the branch and the letters one above the other. In the case we saw, there were two kinds on the two arms of the tree—the Baldwin and Northern Spy—the main or central stem being of another kind, the name of which we do not now remember.

### A Vineyard.

Thomas Wiley, Esq., lately purchased ten acres of ground in the neighborhood of Dr. Nance's residence, seven acres of which (the remaining three being orchard) he has been putting in the most thorough state of preparation, by plowing, subsoiling and manuring, for grape settings next spring. We hail the enterprise as a good omen. There is no danger of growing too many grapes, either for wine or the table. It will be a long time before the latter will be as fully supplied as it ought to be. We hope to have a small vineyard ourself one of these days.—*Dial, Henry Co.*

PROVERB.—Hear instruction, and be wise, and refuse it not.

## Stock.

### Salt for Stock.

We extract the following from a long article on this subject, published in the *Mark Lane Express*. It contains important facts:

The use of salt in the food of cattle must not be looked upon as a direct producer of flesh, so much as a necessary element of the economy without which animals are apt to perish from disease, but with which the body is kept in a normal and healthy state. Not many years ago a German agriculturist, Uberacker, brought forward an experiment which is in direct accordance with this opinion. Wishing to obtain some exact notion of the influence which salt exercised upon his sheep, the flocks of which lived upon a low, damp pasture land, and received habitually a certain dose of salt, he fixed upon ten sheep, and struck off their usual allowance of salt. This remarkable experiment was continued for three years, with the following result:

In the first year five of the ten died of rot and worms; in this year the remainder of the flock, 450 head, lost only four sheep. The second year a new lot of ten sheep, deprived of salt, lost seven individuals; the remainder of the flock, 364 head, lost five only; a little later the other three died also from diarrhoea. The third year was very rainy. Sixteen sheep were selected and deprived of salt. The whole of them died in the course of the year of rot and vermicular pneumonia.

In the Brazils and Columbia, flocks may be annihilated by being deprived of salt; here we have an example of the same thing happening in our own latitudes.

M. Garriott, member of the Agricultural Society of Lyons, assures us that the milk of cows subjected to a daily allowance of salt is richer in butter and cheese than when these same cows are deprived of salt.

Sinclair, to whom agriculture owes much valuable information, observes that the habitual use of salt has a marked influence in improving the quantity and quality of the wool of sheep. This is in accordance with Boussingault's experiments on bullocks. Sinclair goes still further as concerns pigs. Some of the fattest pigs killed in Ireland, according to this observer, are those to whom a certain portion of salt is regularly given.

Many other English agriculturists have proved by direct experiments that a regular distribution of salt to cattle is especially useful in preventing hoove, (meteorisation,) caused by feeding cattle with leguminous and cruciferous vegetables. And there exists, no doubt, among those who have tried it, the idea that when employed in proper quantity, it increases their appetite, stimulates digestion, improves the wool or hair of the cattle, prevents disease, and, moreover, enables the agriculturist to fatten cattle upon food which they would not enjoy without it were previously mixed with salt. Dr. Desaiue, in his treatise on the Use of Salt for Cattle, (to which the Academy of Medicine of Brussels awarded a gold medal,) has arrived at the conclusion that "the seasonable use of salt in the alimentation of cattle may increase indefinitely every branch of agricultural produce." It is on

these grounds that the practice of giving salt to cattle has become so extensive of late years.

But there is another important consideration with regard to the regular distribution of salt to cattle. I allude to its influence in preventing disease. Its daily use becomes of serious consequence when flocks and herds are menaced with these epidemic attacks which too frequently ravage a whole country at once, when a proper use of salt would prevent them entirely, or at least reduce them to less disastrous proportions. During one of the worst of these epidemics, which sprang up, if I remember rightly, about the year 1840, in the east of Europe, the almost wild cattle of the Ukraine, Podolia and Hungary, were struck down in greater numbers than those of Silesia and Bohemia, where the cattle breeders habitually distributed salt to their beasts. Advancing towards the west, this scourge diminished in intensity, and finally ceased to show itself in Germany, where particular care is bestowed upon cattle, and where salt has been for many years constantly employed. But, whatever be the nature of the disease which threatens, animals are much less disposed to contract when the body is in perfect health; and we have seen that this is impossible unless the individual receives each day his proper proportion of salt.

### Vermont Sheep.

The sheep fever is raging, to a high degree, in Vermont. The papers of that State, for the last week, report sales as follows: Eli Thorp of Bridport, has sold a ram for \$1,000, to John Sprague of Waltham. E. S. Stowell of Cornwall, a ram for \$1,200, to D. J. Twitchell of Weybridge. Mr. Stowell has also sold his ram "Sweepstakes," to Twitchell, Boyce & Co. of Ohio, for \$1,200, and he "has two ram lambs for which he has refused \$3,000." M. G. Barber of East Hubbardton, sold a ram to Ships, Cotter & Co. of Ohio, for \$600, for which they "refused \$1,200 before he left the railroad depot." J. S. Benedict of Castleton, recently refused \$1,000 for twelve sheep that might be selected from his flock. Mr. B.'s price was \$1,200, and nothing less would procure them. Seneca Root of East Hubbardton, writes to the *Rutland Herald* as follows:

"In a late number of the *Herald* you ask, 'Who beats?' and say that you have been informed that M. M. Dikeman of this place, sold a buck lamb last fall, &c., that sheared 17½ pounds of good clean wool. I am not one of the bragging kind, and shall content myself by stating facts, and submit to you, whether I beat or Mr. Dikeman. Two years ago I sold to T. J. Ketcham of Pittsford, a buck lamb that I raised, which was dropped in April. The next May he took from the lamb 20½ pounds of 'good clean wool.' I have a yearling April ewe, from which I took last June 14 pounds of washed wool. She was kept with the flock, and had no extra keeping in summer or winter."

## Miscellaneous.

### The White Willow — *Salix Alba*.

I have received the following article from Samuel Edwards, of La Moille, Ill., under date of September 26th:

"In this week's 'Rural' I notice some remarks prejudicial to the white willow. The season has been one of the dryest known in the twenty-two which have passed since I first came to the Prairie State. My success has always been good in getting cuttings to grow. I last year set several acres for timber, which stands well. In sixty rods set for hedge, not a single cutting failed to grow. A neighbor set one this year and lost one-eighth only, though many planters have not saved that proportion.

"Probably a superficial observer, from present inspection of willow cuttings set and corn planted last spring, in this region of country, would pronounce statements made by the advocates for planting and growing either of them extensively and cheaply here, erroneous.

"Some ten years since, the osage orange was generally decided as a 'humbug' on the prairies; whilst, if all the seed in Texas could be planted in Illinois next spring, a ready market would be found for the plants.

"There is no doubt in my mind but that in ten years from this time, the white willow will form a much greater feature in prairie landscapes than does the osage orange at present; nor that the advocates of their being extensively planted, or of the superior advantages of prairiedom for growing cheap corn will be at all delicate 'when these subjects are breached.'

"As to this misrepresentation of pedlars, they are all necessary to learn people to use the same discretion in buying such articles as they do in buying goods for the household. Who thinks of purchasing his supplies for the family of itinerants? Yet it is far better to do this than to buy trees and plants; for where one person is found incompetent to purchase—judiciously—miscellaneous goods, there are several who know very little in regard to trees and plants."

The foregoing, from a man for whose judgment and integrity I have the greatest respect, deserves attention.

1. There is no doubt at all that the season has been extremely unfavorable in many parts of the West, and that a large per centum of cuttings planted have failed from this cause alone. It is true, too, that the cuttings of almost any willow, or other soft-wooded tree, if in the right condition when planted, and if planted at the right season, in a favorable position, will grow with small loss. But it is equally probable that a large per centum of cuttings sold and planted were worthless when delivered. Of this I have evidence. And it is important that those who purchase should be careful to buy only of men of reliability, like Mr. Edwards, who have permanent interests in the West, or a business reputation they cannot afford to lose.

2. It is hardly probable that any one, however superficial, will soon denounce the culture of Indian corn in the west. And I have yet to learn



that any one who has denounced the planting of the white willow, for timber or for a fence where "shelter, timber, and a fence combined, is desired." There seems to be abundant testimony that a wooded screen may be quickly realized by planting the white willow. The Illinois State Horticultural Society so recommended it. But it was not recommended for a fence unless the combination was desired. The osage orange was rejected because it was supposed it would not stand in our climate—not because there was anything in its character that rendered it unfit for hedges. It was believed impracticable for the same reasons that orchards were supposed impossible in Illinois. But there is no such objection urged against the white willow. Its character as a tree is not suited to hedging unless it is desired as a shelter, and there is no objection to its shading a large area. And that it will grow closely planted, and make a reliable, permanent fence, is doubted, analogically, by some of the best horticulturists in the west. But on this point there is no experience either way. It is significant, however, that those who have known it best and longest distrust it most.

3. Mr. Edwards does not doubt that it will become an imposing feature in prairie landscapes. Neither do I, if one-tenth of the cuttings planted grow. But that it will be a fence feature I doubt. That it will be the most desirable feature, I honestly doubt. Plant the Lombardy poplar as extensively as the white willow was planted last year, and it will become in ten years "a much greater feature in prairie landscapes" than the white willow or osage. But it does not follow that it would be either so useful or beautiful feature as the osage, or Norway spruce, or white pine, ash-leaved maple, silver maple, or a dozen other trees that might be named. A "great feature" is not always a harmonious one. There are few men of taste who want the eye to rest against willows as the only relief to our "monotonous" prairies. Groves of elm, maples, birch, the different evergreens, and fruit trees, are certainly more desirable. And it does not follow, by any means, that because "the people" are willing to "swallow" the white willow as a panacea for all diseases, that it is best to cram it down their throats as an article of diet.

4. Now one word about peddlers. Where almost all nurserymen distribute their wares through the agency of the much abused "peddlers" otherwise called "agents," it is little less than folly to denounce them. But is probably true that these peddlers, or "agents," many of them, lie vigorously "on their own hook" and without the countenance or sanction of their employers. That a heap of this professional story telling has been done the past year, there is abundant evidence. And here at the close I wish to make some negative assertions which will aid those who have been visited by white willow peddlers in determining their reliability:

1. The white willow is not a hedge plant.
2. It does not grow as well on high, dry ground as on low, moist, rich soils.
3. It is not true that stock will not eat or browse it.
4. The large samples exhibited as specimens of growth are not samples of its average growth in closely planted hedges.
5. It is not superior to all other willows as a timber tree.

6. It does not make wood faster than the Lombardy poplar, golden willow, silver leaf poplar, weeping willow, cottonwood and peach, planted on dry soils. And there are sundry other negatives which may be given to the affirmations of these "itinerants."

It is not my object to prevent the planting of this willow for timber for high screens where desired, but it is my aim to prevent disappointment—to let the rural public know precisely how far it is desirable. I will not lend my pen nor influence to men who are seeking to fleece farmers by glorifying and magnifying this willow far beyond its merits and value, and by false representations lay a permanent foundation for disappointment and distrust. And it is proper to say here that this effort is not confined to misrepresentations. I have seen plantations of willow, in rows for hedges, which I seriously doubt if there was a white willow cutting; but the man bought them for white willows.—*Rural New Yorker*.

—The above was written by the Western Editor of the above paper. We are disposed to take the affirmative of the 5th proposition. Of another thing we are also satisfied, that for a live farm in low lands where the Osage and Lombardy will not grow, that the White Willow will prove to be the most valuable for this purpose. In grassy lands the shade is but little detriment to the grass crop.

The demand for cuttings for next spring is already large and rapidly increasing. The farmers are becoming afraid of the Willow peddlers, and are sending their orders direct to the nurseries. We have had numerous letters of enquiry for the genuine White Willow, and have referred the parties, in all cases, to the nearest reliable source, to the writer. Our own stock is not large, and we can only fill small orders. Those having the Willow for sale, would do well to advertise and give their prices.

The Willow fever has abated, but not dead by a long way. The worst blow to it has been dealt, has been by the lying peddlers, and from which it will only slowly recover. We shall use more or less of the Golden or Yellow Willow for a contrast, putting in alternate strips of each. Of the latter we have two year old cuttings, which are the best in all cases. We also intend to set out two or three acres of White Willow for wood lot. The acre set for this purpose last spring, made a good growth, considering the season.—*Ed*.

### The Geological Winter.

From the paper of Prof. Agassiz in the last number of the Atlantic Monthly, entitled "The formation of Glaciers," we take the following highly interesting passage:

The long summer was over. For ages a tropical climate had prevailed over a great part of the earth, and animals whose home is now beneath the Equator roamed over the world from the far

south to the very borders of the Arctic. The gigantic quadrupeds, the Mastodons, Elephants, Tigers, Lions, Hyenas, Bears, whose remains are found in Europe from its southern promontories to the northernmost limits of Siberia and Scandinavia, and in America from the Southern States to Greenland and the Melville Islands, may indeed be said to have possessed the earth in those days. But their reign was over. A sudden intense winter, that was also to last for ages, fell upon our globe; it spread over the very countries where these tropical animals had their homes, and so suddenly did it come upon them that they were embalmed beneath masses of snow and ice, without even time for the decay which follows death. The Elephant whose story was told at length in a preceding article was by no means a solitary specimen; upon further investigation it was found that the disinterment of these large tropical animals in Northern Russia and Asia was no unusual occurrence. Indeed, their frequent discoveries of this kind had given rise among the ignorant inhabitants to the singular superstition already alluded to, that gigantic moles lived under the earth, which crumbled away and turned to dust as soon as they came to the upper air. This tradition, no doubt arose from the fact that when in digging they came upon the bodies of these animals they often found them perfectly preserved under the frozen ground, but the moment they were exposed to heat and light they decayed and fell to pieces at once.

Admiral Wrangel, whose Arctic explorations have been so valuable to science, tells us that the remains of these animals are heaped up in such quantities in certain parts of Siberia that he and his men climbed over ridges and mounds consisting entirely of the bones of Elephants, Rhinoceroses, etc. From these facts it would seem that they roamed over all these northern regions in troops as large and numerous as the Buffalo herds that wander over our western prairies now. We are indebted to Russian naturalists, and especially to Rathke, for the most minute investigations of these remains, in which even the texture of the hair, the skin and flesh has been subjected by him to microscopic examination as accurate as if made upon any living animal.

We have as yet no clue to the source of this great and sudden change of climate. Various suggestions have been made—among others that formerly the inclination of the earth's axis was greater, or that a submersion of the continents under water might have produced a decided increase of cold; but none of these explanations are satisfactory, and science has yet to find any cause which accounts for all the phenomena connected with it.

It seems, however, unquestionable that since the opening of the Tertiary age a cosmic summer and winter have succeeded each other, during which a Tropical heat and an Arctic cold have alternately prevailed over a great portion of the globe. In the so-called drift (a superficial deposit subsequent to the Tertiaries, of the origin of which I shall speak presently) there are found far to the south of their present abode the remains of animals whose home now is in the Arctic or the coldest parts of the Temperate Zones. Among them are the Musk-Ox, the Reindeer, the Walrus, the Seal, and many kinds of shells characteristic of the

Arctic regions. The northernmost part of Norway and Sweden is at this day the southern limit of the Reindeer in Europe; but their fossil remains are found in large quantities in the drift about the neighborhood of Paris, where their presence would, of course, indicate a climate similar to the one now prevailing in Northern Scandinavia. Side by side with the remains of the Reindeer are found those of the European Marmot, whose present home is in the mountains, about six thousand feet above the level of the sea. The occurrence of these animals in the superficial deposits of the plains of Central Europe, one of which is now confined to the high North, and the other to mountain heights, certainly indicates an entire change of climatic conditions since the time of their existence. European shells now confined to the Northern Oceans are found as fossils in Italy,—showing, that, while the present Arctic climate prevailed in the Temperate Zone, that of the Temperate Zone extended much farther south to the region we now call sub-tropical. In America there is abundant evidence of the same kinds throughout the recent marine deposits of the Temperate Zone, covering the low lands above tide-water on this continent, are found fossil shells whose present home is on the shores of Greenland. It is not only in the Northern hemisphere that these remains occur, but in Africa and South America, wherever there has been an opportunity for investigation, the drift is found to contain the traces of animals whose presence indicates a climate many degrees colder than that now prevailing there.

But these organic remains are not the only evidence of the geological winter. There are a number of phenomena indicating that during this period two vast caps of ice stretched from the northern pole southward, and from the southern pole northward, extending in each case towards the equator—and that icefields, such as now spread over the Arctic, covered a great part of the Temperate Zones, while the line of perpetual ice and snow in the tropical mountain ranges descended far below its present limits.

### Dairy Prospects of Northern Illinois.

The present demand, the constantly increasing inquiry for all dairy products, the high price of butter and cheese, even for home consumption, give indications that no more profitable business can be followed than dairying. Chicago has in the last decade so grown in size and numbers as to be out of all knowledge of men who have not been there since they carted and sold the last load of wheat from their own wagon at the ware house of Chas. Walker, or some other sharp buyer. There are a few such even in our county. It is hard telling the number of inhabitants or transient residents of the "Garden City." Well, all actual and transient residents live by eating, and every one will have (if they can get it) a nice plate of fresh sweet butter. The Fox River valley used to furnish a good deal of this staple, but like New York, Chicago has her milk trains, and as it is much more profitable to sell milk, even at two cents a quart, than to make either butter or cheese, all the milk produced on the farms near the railroad lines goes to supply the breakfast-tables of the citizens of Chicago.

## Editor's Table.

BAILHACHE & BAKER - - - PUBLISHERS.

M. L. DUNLAP, Editor.

SPRINGFIELD, ILLINOIS, DECEMBER, 1863.

We are now about to close the VIII Volume of the ILLINOIS FARMER, the last four of which have been under our charge. Taking upon ourself its conduct for only a short time, until some other person could be induced to take it in hand, we have from month to month and from year to year continued its sole editor. Our readers know that the time that we can spare to render its pages instructive and valuable, must be wrung from other duties, and form but the snatches of time. Without an office editor, the proof reading has been left to the tender mercies of a job office, and innumerable errors have been the result.

The agriculture of Central Illinois demands a journal that shall be more worthy of the tillers of its rich soil and genial climate, but until the war is brought to a close, we cannot expect any material improvement. Notwithstanding all these imperfections its pages have on all occasions been outspoken, with a thorough canvassing of all subjects within its scope. In this respect we trust that it will compare well with any of our contemporaries either east or west.

We owe no allegiance to advertisers beyond the space they occupy, nor are we bound up in any of the old isms or theories of the day. With our own hands we have earned our way at the toil of the plow, cutting furrows more or less even. In our home practice excelsior has been our aim, but having no outside means, we have been under the necessity to study economy and practical utility in all our efforts, and to this end have been compelled to keep a slate and pencil to figure up the prospective results of every enterprise.

How long we shall continue to wield the pen we know not, but we are always ready to lay it down for the plow, the spade, the hoe, the pruning shears or the fruit basket. We can never be coaxed to live in the city, or to write up farming in the garret, in such a condition we would be like a wilted beet on the huckster's table. Wedded to the farm, the orchard and the garden it has been a pleasure to teach others its practical lessons, otherwise we should have remained silent, for we have no other ambition to gratify than to be useful.

As in the past we can make no other promise to our readers than that while under our charge, the FARMER shall continue to give practical lessons in rural pursuits.

## Taxes on Railroad Lands—Dairy and Orchard Lands.

*Editor Farmer*:—I see it stated that there is no tax on the lands sold by the Illinois Central Railroad, until after the same is deeded to the purchaser. Can you tell me why they are exempt, and how long? I intend to visit your State the coming winter, with the view of locating on a farm for fruit and dairying. What part of the State should I visit for these purposes?

Yours Truly,

O. T. M.

OSCEOLA, N. H. Oct. 15, '63.

—By contract with the State of Illinois the Central Railroad Company pay a tax of seven per cent. on the gross earnings in lieu of all taxes, and which amounted last year to some \$200,000. This goes direct to the State treasury, and thus defrauds the counties through which the road runs of their proportion of the tax for local and county purposes, and throws the burden of taxation on the alternate sections, for county, town, school and road purposes. As the Company must sell their lands within twenty years from 1857, this state of things will be at an end, but in the mean time relieves the purchaser of these lands of taxes, which are sometimes heavy for new school houses and new roads. By the above arrangement the railroad pays a very large tax which must in time go far towards paying the ordinary expense of the State. Except for schools the taxes are light.

As a general thing, fruit growing and dairying do not run well together. Fruit lands must be high and rolling, while the best dairy lands are rather low and moist. In some cases in this part of the State farms can be found containing both grades of land, but not as a general rule. Good orchard land is also good grain land.

AN EDITORIAL CALL.—A few days since we were taken by surprise by Col. Mason C. Weld, Associate Editor of the American Agriculturist, and W. N. Corbitt, of the Prairie Farmer, who spent part of a day with us. Col. Weld was looking into white willow, sugar beets, sorghum, and other Western staples. With all of which the Col. expresses himself well pleased.

THE HORTICULTURIST.—For the past year the leading feature in this journal has been grape culture, in which a vast amount of information has been presented, and yet the subject has not been exhausted. It will give a new impetus to grape culture both in doors and out as the lessons have been so plainly illustrated. At the same time the main features of the work have not been neglected. Terms \$2. Address, MEAD & WOODWARD, N. Y. City.

**THE DELAWARE GRAPE.**—We have thus far taken the position that this grape was not a grape for general culture throughout our State, at least with the present state of our knowledge in regard to it, an opinion to which we still adhere, though the time may come when it will be so well understood that it may well claim such a position.

In the spring of 1859, we paid Samuel Moulson, of Rochester, N. Y., nine dollars for three grape vines under this name. They have proved to be a sickly growing vine, with leaves smaller than the Delaware and have never borne a cluster of grapes, though in a good border against a south trellis, six feet high boarded tight. We supposed this to be true Delaware of course, and said hard things on its account, but like many other things sent us by Mr. Moulson, has proved to be untrue to name. These things have had two effects, one to disappoint us, and the other to lose Mr. M. a large and promising trade with ourself and others. Our second attempt was with a dozen grafted vines from J. L. Stetzing & Co., of Columbus, Ohio, in the spring of 1861. These have fruited this year in a small way, but have not come up to our ideas of a grape for the million. We have now ordered seventy-five first class vines of J. H. Stewart, of Quincy, who has been so successful with this his favorite grape. A part of these we shall put in the vineyard and treat them according to instructions from Mr. S. We are pleased with the fruit of this grape and do not know how to do without it, and now that we have good vigorous layers, we shall hope to succeed. As a general thing our German gardeners do not succeed well with American grapes, and we have made a change to native talent.

**DIRECTION TAGS.**—These are now made in Chicago by S. S. Miller. We observe two qualities, one of cloth and paper, and the other all cloth. The cloth will be found the most valuable, especially where liable to become wet. Our nurserymen will do well to bear this in mind when making up their orders. One thing more is needed in this line, and that is wooden labels for nursery trees and plants. Plenty of these are made at the East, but the cost of transportation puts them beyond our reach. Some lame soldier having a little ingenuity, could make a good living at making these little wooden labels for nurserymen and gardeners' use.

Mr. Miller has sent us a sample of a tin label for trees, to be written on with chemical ink, and which he warrants to last five years. We doubt the utility of these, though their cost without wire, is only three dollars a thousand. We have given that kind of label a trial, and discarded it a half a

dozen years since, marking on the outer bark as described in another part of the paper, is a good mode of perpetuating the name.

**REPORT OF THE COMMISSIONER OF AGRICULTURE.**—We have read the most of this report, being the first one issued from the new office. The work is a highly valuable one, and should be in the hands of our farmers generally. We trust the present Congress will place sufficient funds in the hands of Com. Newton to enable him to extend his usefulness.

The subjects most interesting to the West are the wheat plant, fruits, including outlines of several varieties, and sheep husbandry. The statistical tables will be found highly interesting. The chapter on the climatology of grapes, will be found new to most readers, and to a great extent unravels the mystery of grape culture, and shows what varieties to plant in given locations.

**NATIVE APPLES.**—Edward J. Evans, of York, Pa., has sent us a descriptive catalogue of native apples, containing nearly four hundred varieties. Those wishing any of these will do well to send for a catalogue. Mr. Evans is doing a good work in making this collection. It is probable that many of them will prove valuable. We observe but three from this State—Dana, Early Pound and Fulton. The Dana, if we recollect, was shown at the Burlington meeting by the late William Stewart, of Payson, Ill., and highly recommended by him.—We do not think he claimed it as an Illinois seedling. Will J. H. Stewart, of Quincy, give us some light on this subject.

**FLOWERING BULBS.**—James Vick, of Rochester, N. Y., has sent us his list of bulbs for 1863. The prices are low. Last spring we sent to Mr. Vick for flower seeds and were much pleased with our purchase. The seeds were fresh and came up remarkably well. Mr. V. is a practical florist and knows what he sends out. If you want reliable seeds give him an order.

### Editorial Courtesies.

The Ohio Farmer has recently shown a great aversion to offering subscribers grape vines and strawberry plants as gratuities, asserting that it is all a humbug, &c., and warn the public how they are led into such a "net," &c. This we attributed to the probable fact that the proprietors of that paper had no vines, &c., to give to their subscribers, and were too poor to buy any; but to our surprise we find in the next issue, after a fling at the grape vine and strawberry gratuities, the following:

"We have made such arrangements as enable us to make the following offer: For \$5 50 we will furnish the *Ohio Farmer* for 1864, the *Eclectic Magazine* for 1864, and two premium *parlor pictures*, &c.

Now that is decidedly *rich*! Old "*parlor pictures*," unsaleable trash of the stores, offered as gratuities, are perfectly proper, while some of the best grape vines and strawberry plants in existence, actual *necessaries* in the garden of every man, are, according to the *Farmer*, of no value, and the public are warned against such "humbugs!" Alas! for human nature, especially that stripe found in the editorial room of the *Ohio Farmer*!

We advertise, as above, our cotemporary and its gratuities, hoping that the large additions to its subscription list, resulting therefrom, will put it in better humor. Address "*Ohio Farmer*, Cleveland, Ohio."—*Rural American*.

We propose to advertise both, inasmuch as the farmers like to be humbugged occasionally. Let them have the chance. The grape vines are all well enough, but, friend Miner, is not that picture of Russel's Prolific cut a trifle too large? Two and three-fourths inches long and three-tenths in diameter, is pretty well up to old parlor pictures, especially if retouched with a common paint brush. We fear that the recipient of such vines would cry humbug, and swear that he had a lot of new summer squash vines; while he of the parlor pictures would be rich in the idea of specimens of the old masters. Go it, gentlemen, while you are young, both are right and will do a deal of good; if your premiums are of little value your papers are worth the money you ask for them.—Ed.

LAYERING GRAPES.—The Horticulturist says:

"It will soon destroy any vine to use it for making layers."

We have layered our Concord vineyard some six years, and it is as vigorous and productive as ever. We generally use about half the wood for layers, and the other half for fruit. We, therefore, are a disbeliever in the above doctrine.—

Just so all of this twaddle about layering has come of making too many layers to the vine, not in a judicious use of this mode of propagation. The Delaware and Diana, Dr. Grant says, have been nearly ruined by this mode, until he fortunately rescued them from their fate and presented them to his customers in their pristine vigor. Humbug is great, but a friend at our elbow says that anti-humbug is sometimes even greater.—Ed.

THE GENESEE FARMER.—THE December number of the *Genesee Farmer* is received. A new volume commences with the January number. Now is the time to subscribe. There is no better agricultural paper published. Price only 75 cents a year, send for the paper for 1864, and you will not regret it. Address JOSEPH HARRIS, Rochester, N. Y.

DYPHTHERIA AMONG CHILDREN.—This disease has swept off thousands of children, not only in the cities but in the rural districts. The simple remedy of a gargle of salt and water would have saved many of them.

A distant friend had a pair of twin daughters just budding into beauty, which were stricken down and laid in one grave. One of our old class mates, whose hand—always kindly stretched toward the suffering—sends us the following to their memory:

Josephine, thy twin-born sister

Dwells upon the spirit shore.

Death divides, such fearful distance

Never severed you before.

Oh! heard you not at hush of midnight,

Angel voices in your room?

Oh! heard you not a well known whisper,

"Come, sweet sister, hither come?"

Oh! felt you not her fond caressing,

Bidding you with her to roam,

Meanwhile, her white hand pressing,

You answer, "Victoria, I come, I come?"

\* \* \* \* \*

Twin angels now, as hand in hand

You tread the field of light,

White robed and radiant as the stars

That gem the brow of night.

The damps of death no more shall press

Those cheeks and lips of love,

The breath of Heaven shall fan the hair

That shades your azure eyes.

CLAIM AGENCY.—We perceive by the advertisement that Mr. Geo. S. Thompson, of this city, has formed a copartnership with Gen. L. F. Ross, and Capt. M. Kimball, for the prosecution of all militay claims against the United Statee government. Mr. Thompson's business capacity is well and favorably known all over the state. Aided by his present associates, who have had practical experienc in the claim agency business, his firm is sure to be extensively patronized.

Thus far during the war we have had occasion to use this agency for our army friends and always with the most satisfactory results and we take great pleasure in calling the attention of our readers to their promptness and fidelity.

HURD'S HOG TAMER.—A season's use of this valuable implement has confirmed the good opinion that we had formed of it. See advertisement.

ITEM.—The envious man hath a wicked eye.



### Rhubarb Wine.

We have but little faith in the merits of rhubarb wine, for the reason, that we do not think anything can be made from it that will command a ready sale as *wine*. It may be sold as a cheap beverage under some name; but wine is made from grape juice, and not from anything that contains a juicy substance. We may as well make "wine" of apples, sorghum, cornstalks, &c., as from rhubarb, because these articles produce a saccharine juice that may be fermented, &c.

Here is what the *American Agriculturist* says in regard to "Rhubarb wine:"

The Wine Plant Humbug is still carried on in various parts of the country, as we learn from several letters. For example, Mr. B. F. Brown writes from Duane county, Wisconsin, November 8th, that an agent is there selling Linæus Rhubarb at \$37 50 per 100 plants—many of them not the size and length of a man's little finger—telling people that they can make 1½ gallons of wine from each plant next season, which will sell readily for \$2 a gallon; that government agents are contracting for all they can at this time, etc." This is sheer lying and swindling. Neither government agents, nor anybody else is doing, or will do any such thing. A plant set now, will not make 1½ gallons even of what is called wine, next season. Reliable men, King and Murray, of Flushing, and others have this year advertised in the *Agriculturist*, good Linæus Rhubarb roots at \$18 to \$25 per thousand (only \$1 80 to \$2 50 per 100.) Our previous notice of this matter has probably put upon their guard all our readers except those subscribing recently. Don't believe the stories told, nor trust the samples of real or pretended wine shown.

If any of our readers can show that these remarks are incorrect, please send us your evidence, that we may give the other side of the question.—*Rural American*.

The facts as we learn them are that this wine plant humbug has had a most splendid run throughout the state of New York, at least we hear little of it in this part of the *parish*. Would it not be well for our eastern cotemporaries to offer premiums of the wine plant, and thus save their readers from the plant swindlers?

The Rhubarb makes a drink bordering upon poor whisky, and as that commodity has gone up beyond the reach of old toppers it might prove an object to them, as it is neither wine or whiskey; no duties can be levied on it under the present law. The stuff will be made and drank—in fact, some samples of it are quite drinkable in a small way. If it was called the whisky plant the name would be nearer the truth. It might be duplicated over the same region under this name, without doubt.—Ed.

### The Practical Shepherd.

This work from the press of H. S. Randall is what we had anticipated, a complete guide to the sheep husbandman, and should at once find a place not only in the library of every wool grower, but

in the hands of those pursuing a mixed husbandry.

The work could not have been more opportune, as it will serve as a guide to those who intend to purchase flocks and commence the business under the present excitement in the new demand for wool. It shows how improvements should be made, and how the farmer pursuing a mixed husbandry will be benefitted in adding sheep to his other stock. In short we have the whole subject of the history of the various breeds, their relative values, breeding, feeding, general care and veterinary practice. We would copy largely from the work, but as every wool grower must have the work itself, we shall use our space for other subjects. We shall give more attention to wool growing at the West, now that it is fast becoming one of the great staples, but at this time we can do this class of cultivators no better favor than to recommend them to send for a copy of the work. It is sold only by canvassers and at the office of publication. See card of D. D. T. Moore, Rochester, N. Y., in advertising department, and remit him the \$1 80, and receive a copy per mail at once.

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## Special Notices.

**AGENTS.**—We do not appoint any agents—all are voluntary. Any person so disposed, can act as agent in any place.

**ENLARGE YOUR CLUB.**—Will not the friends of the ILLINOIS FARMER inquire how many copies of the FARMER are taken in their respective offices, and pass around among those who ought to have their names added to the list? Our terms are so low to clubs of ten and twenty that we ought to have one or the other made up at every office in the State, and at every office in Central Illinois, one of twenty or more. Will our friends, and the friends of practical agriculture see to it, and thus lay us under renewed obligations?

**TO SINGLE SUBSCRIBERS.**—You receive the only copy of the FARMER that goes to your post office. Can you not send one, two, three or more new subscribers, without any trouble? Try. Sample numbers, etc., sent free.

**DRAFTS.**—Those remitting us large amounts of money, will please send us drafts on Springfield or Chicago, less they exchange. If you send cash in a letter, be sure that it is well sealed and well directed, to Bailhache & Baker, Springfield, Illinois.

**THE FARMER AS A PRESENT.**—Any of our subscribers who wish to make a present of the ILLINOIS FARMER for 1863, can have it at the lowest club rates, when out of the State. For fifty cents you can treat your Eastern friends to a Western Agricultural Paper. In no way can you invest that amount to so good advantage to emigration.

**SEND NOW.**—Any person who remits pay for a club of ten or fifteen, or any other number at the specified rates for such clubs, can afterwards add to the clubs, and take advantage of the reduction. Thus a person sending us five subscribers and three dollars, can afterwards send us three dollars more and receive six copies.

**TO THE CASUAL READER.**—This and other numbers of the ILLINOIS FARMER will be sent to many persons who now use it for the first time. Will they not examine it, and if they like it, subscribe for it, and ask their neighbors to subscribe? Sample numbers, prospectuses, etc., sent free to all applicants. See terms elsewhere.


**HOW TO OBTAIN SUBSCRIBERS.**—The best way is to send for sample numbers. Any young man by canvassing his neighborhood, can easily make up a club of five, ten or twenty, but no time should be lost in doing so, for your neighbors may send east for their


paper which, though valuable there, is much less so here, the difference of soil and climate putting them out of their reckoning when attempting to teach us Western farming.


**HOW TO HELP.**—The friends of the ILLINOIS FARMER will find a prospectus in another column. We desire to suggest a few ways in which they can use it to advantage:


1. Show the FARMER to those who are unacquainted with it, and tell them what you think of it.
2. Send for prospectuses, and put them into the hands of those who will use them, and place posters where farmers will see them.
3. Get post masters interested. They see everybody, and are efficient workers.
4. Send us the names of persons in your town to whom we can send prospectuses and sample numbers.
5. Begin now, before the agents of Eastern papers get up their clubs.

This last hint is especially important. Let us hear from you soon. See terms elsewhere.

 Clubs may be composed of persons in all parts of the United States. It will be the same to the publishers if they send papers to one or a hundred post offices. Additions made at any time at club rates. We mail by printed slips, which are so cheaply placed on the papers, that it matters little whether they go to one or a dozen offices.

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Springfield, Illinois.

**SPECIAL NOTICE.**—For terms see prospectus on last page. All exchanges and communications for the eye of the editor should be directed to ILLINOIS FARMER, Champaign, Illinois. Electrotypes and business matters, and subscriptions, to the publishers, Springfield, Illinois. Implements and models for examination should be sent to the editor. The editor will, so far as it can be done personally, test and examine all new machines and improvements submitted to his inspection. He will be found at home, on his farm, nearly all of the time. So far as it is possible, the conductors on the Illinois Central Railroad will let off passengers at his place, which is directly on the road, three and a half miles south of the Urbana Station, now the city of Champaign.

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Also half an acre Wilson's Strawberry, a good supply of Grape, Gooseberry, Raspberry, Blackberry, &c.

The place is adapted to growing early Apples, Quinces, Pears, Small Fruits, Sweet Potatoes, for Chicago market. Is well watered by a creek, and would suit well for keeping a few cows and making butter. A Horse, 2 Cows, Poultry, Implements, &c., will be sold with the place if desired. Good road to Depot, and but one mile to School House. Price \$700 in Greenbacks, payable when deed is delivered.

If you really wish to purchase, address Box 57, Anna, Union County Ill.

jan1-1t\*

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By any one sending three dollars to Reuben Hurd at Morrison, Whiteside county, Ill., he will receive one free of freight; and I will warrant them to give perfect satisfaction, or money refunded.

To those sending: Please name the railroad station you wish them shipped to, as I keep a constant supply on hand, and will be able to fill all orders with promptness and dispatch.

Directions for using will accompany all orders.

**REUBEN HURD.**

Nov. 1, 1863—6m.

## H O V E Y ' S AGRICULTURAL WAREHOUSE AND SEED STORE.

Has one of the best selected stock of implements and seeds to be found in the West.

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Novtf1862

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March 1, 1863.tf

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August, 1862.tf



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AGRICULTURE AND HORTICULTURE.  
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BAILHACHE & BAKER,  
AND IS EDITED BY  
M. L. DUNLAP, Tribune's Rural.

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All business letters are to be directed to the publishers, Springfield.

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